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History of the Voyage of the U.S. Steamer
"Jeannette" . 1882

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FROM

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HISTORY (B) /
OF THE
ADVENTUROUS VOYAGE
AND
TERRIBLE SHIPWRECK
OF THE
U. S. STEAMER "JEANNETTE"
IN THE POLAR SEAS,

TOGETHER WITH A FULL AND PARTICULAR ACCOUNT OF
THE DEATH OF LIEUTENANT DE LONG AND HIS BRAVE SHIPMATES,
IN THE SIBERIAN DESERTS;
AND
THE RESCUE OF DANENHOWER, MELVILLE,
AND THEIR HEROIC COMPANIONS.

CAREFULLY COMPILED FROM AUTHENTIC RECORDS.

WITH NUMEROUS ILLUSTRATIONS.

New York:
DE WITT, PUBLISHER,
No. 33 ROSE STREET.

1882.

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HISTORY

OF THE

Voyage and Loss of U. S. Steamer "Jeannette."

ANOTHER expedition has in part returned from those dread icy regions, that have baffled the skill and heroism of PARRY and FRANKLIN, of KANE and HAYES; aye, and of many hundreds of other gallant adventurers, at once hardy sailors and heroic men. As to the remnant that have escaped, we trust our people will welcome them with appropriate rewards. But for DE LONG and CHIPP, and their noble shipmates, we can only drop sympathetic tears over their ice bound cerements, and erect monuments to commemorate their achievements.

And here it will not be out of place to record our admiration for the whole souled liberality of JAMES GORDON BENNETT, who generously purchased and bestowed the good ship JEANNETTE, for the purpose of searching for and aiding the supposed lost navigator, Nordenskiöld. Mr. B. had purchased the JEANNETTE and lavished large sums upon her equipment, greatly strengthening her for the terrible conflict she was likely to have with the terrific force of the tide hurled masses of arctic ice, in the "nip" of which an ordinary vessel would be crushed as easily as a humming bird's egg in the jaws of a crocodile. The London *Standard* had said of the JEANNETTE, that when she sailed from San Francisco, in July, 1879, "a better equipped, better manned, or more amply found vessel of its kind never started out." Money had been poured out like water, to buy stores, instruments, and every conceivable necessary or comfort to lighten the tedium of the terrible strain, both of mind and body, to which the daring thirty-three men who composed her crew must necessarily have looked forward to encounter. The following narrative will show that the crew were worthy of the best craft that ever

battled with the storm and the ice. They faced every danger, and did all that gallant men could do, from the moment that they passed through the wide portals of the Golden Gate, till they waded through the muddy waters that rush into the arctic seas from the many mouths of the Lena. Upon the so often bitterly denounced shores of Siberia they received a warm welcome, such as has not always been accorded to shipwrecked seamen cast upon the civilized shores of Barnegat or Cornwall.

We will briefly note the principal and somewhat uneventful incidents of the vessel's cruise, until we enter upon the history of her loss.

The JEANNETTE was fitted out at the navy yard of Mare Island, California, and was duly commissioned at that place for an United States Exploring Expedition, on the 2d of June, 1879. The ship was commanded by GEORGE WASHINGTON DE LONG, U. S. N. Under this young but experienced officer were five commissioned officers, an ice pilot, a taxidermist, a correspondent of the New York *Herald*, and a crew numbering twenty-six, all picked men, faultless in *physique*, of excellent habits, and approved good dispositions.

It was on the 8th of July, 1879, that the JEANNETTE departed from San Francisco, California, bound to Ounalaska. On the 2d of August she safely arrived at that place.

Here we take up the narrative from the detailed accounts furnished for the information of the government of the United States, by Lieutenant Danenhower and Engineer Melville. These deeply interesting details have the advantage of being written by men who have passed almost through "the valley and shadow of death"—accounts noted down at the time, amid all the horrors and sufferings which few have lived through and returned home to tell of.

CHAPTER I

ENGAGE TWO INDIANS AND DOGS—MEET WITH NATIVES—GRAND SCENERY—
FIND TRACES OF THE VEGA—MEET CHUCKCHES, HOSPITABLE AND
HANDSOME AND DIRTY—TAKE LEAVE OF LAND FOR TWO YEARS.

After coaling ship at Ounalaska we proceeded to St. Michael's, Alaska, to meet our supply schooner, the Fanny A. Hyde. There we filled up with stores, got fur clothing, purchased forty dogs, and engaged two American Indians—Anequin and Alexie—as hunters and dog drivers, thus completing our complement of thirty-three. On the 25th of August we crossed Behring Sea in a very heavy gale, and though the ship was loaded very deeply, she behaved admirably. We visited St. Lawrence Bay in order to take in coal and the remaining supplies from the schooner, as well as to converse with the native Chuckches, and to get news of Nordenskiöld. We met about twenty natives, one of whom had learned a little English from American traders, and he told us that a steamer had passed south the previous June. The natives were ragged and dirty, and had no food to dispose of. We shot some wild fowl, and then we saw remains of vessels burnt by the Shenandoah. Up the St. Lawrence Bay we found magnificent scenery. The astronomical position of Lutke Island we found to correspond with that given by Admiral Rodgers, and his chart of the harbor proved very good. We sent off our last mail by the supply schooner, and on the 27th of August, at seven p. m., we started north. Next day we passed through Behring Strait. We rounded East Cape about three of the afternoon of the 28th. Was then cloudy; no observations; running by dead reckoning. The East Cape loomed very bold and bluff. We could not see the Diomedes in the straits. On the 29th I saw from the crow's nest huts on the beach. We stood in and found a summer settlement. Captain De Long and a party of officers started ashore in the whaleboat, but could not land, owing to the surf breaking on iceward. Seeing the difficulty, the natives launched a *bidarah*, or large skin boat, very skilfully, and came off to the ship, bringing their chief with them. We had a long interview with them in the cabin, but as neither party could understand the other, the results of the conversation were not great. They made us understand, however, by bending the elbow and saying "Schnapps," what they wanted, but the captain refused to listen to their request. Lieutenant Chipp then went ashore and succeeded in landing about midnight, and from an old woman from King's Island, who could talk with our Indians, we learned that Nordenskiöld with the Vega had wintered to the north of them, and had passed east of Behring Strait in the month of June.

We got observations on the afternoon of the 9th, and, working with an approximate latitude, it placed us near Cape Serdze Kamen, though this did not correspond with our dead reckoning. The next

day we cruised along the coast to the westward. Met two other parties of natives, who came alongside, but took a look at us only. They are probably the ones who reported our decks as having been covered with dogs and coal. On Sunday, August 31, we fell in with some drift ice, and at daylight discovered a few huts on the beach. The drift ice extended about four miles off shore. Lieutenant Chipp, Ice Pilot Dunbar and I went ashore in the whaleboat to interview the natives. After a few hours' pull through the drift pack and seeing many seals, we reached the beach, and found several carcasses of recently slain walrus. The natives seemed rather shy, and we had to look them up in their skin tents. There we found a sailor's try-pot and a cask marked "Centennial brand of whiskey," conclusive proof that the people were in occasional communication with American traders. We met there an intelligent young Chuckche, who offered to show us the spot where the Vega had wintered. We took a tramp of several hours to the westward, and saw a bay about fifteen miles wide between the headlands, and there the natives told us the Vega had passed the winter. We found nothing there of any consequence. In the tents, however, we found tin cans marked "Stockholm," scraps of paper with soundings marked in Swedish, and some interesting pictures of Stockholm professional beauties. The natives indicated to us by signs that the steamer had passed safely out to the east. They talked of "Horpish" as having been able to speak their own language—probably referring to Nordquist, who, I notice, is mentioned in Nordenskiöld's book. After purchasing some of the pictures and tin cans we returned to the ship. During my absence the captain had got the sun at noon, and the latitude placed us about fifteen miles inland. Our astronomical positions were not reliable, owing to the state of the weather, but from them and the dead reckoning, we felt assured that the coast is not correctly charted. The general appearance of the coast was fresh and pleasing. Off what we supposed to be Cape Serdze Kamen we saw a large heart shaped rock, of which Mr. Collins made an elaborate sketch. There were several sugar loaf mountains in sight. Our walk to the Vega's winter quarters was over a mossy tundra; no signs of deer; the vegetation withered. The natives were hospitable, and one old Chuckche dame pressed us to eat a dish of walrus blood, but we felt compelled to refuse the offer. The natives were stalwart and handsome; they lived in skin tents and were exceedingly dirty. They were well clad, and the chief wore a red calico gown as the distinguishing mark of his dignity. This was the last time most of us touched land for the period of more than two years.

CHAPTER II

STAND OUT TO SEA—SEE WHALING BARK, BUT PASS IN FOG—ENTER THE ICE PACK—DEVIATION OF COMPASS—THUNDERING OF HEAVY MASSES OF ICE—VAIN ATTEMPT TO LAND—A DRIFT IN A GALE—KNAPSACKS READY.

About 4 p. m., August 31, we stood to the northwest, shaping our course to the southeast cape of Wrangell Land, and then we felt that our arctic cruise had actually commenced. We met considerable drift ice; the weather was stormy and misty. About sunrise of the 1st of September we discerned an island, which was taken to be Kolintchin, in Kolintchin Bay. Next day we met pack ice, in floes of moderate size, turned to the northward and northeastward and cruised along the Siberian pack, entering leads at times to examine them. On the afternoon of the 4th of September a whaling bark bore down to us; we stopped engines and awaited her approach, but the weather became misty and she did not speak us. We had an arctic mail on board at the time, and were disappointed at not being able to send letters home. We ran in several times and made fast to floe pieces to await clear weather. That afternoon, about 4, we saw an immense tree with its roots drifting by. Ice Pilot Dunbar seeing it, said that in 1865, when the *Shenandoah* destroyed the whalers, he was at St. Lawrence Bay, and when a few months later he landed on Herald Island, he was greatly surprised to see masts, and portions of the destroyed vessels drifting in that vicinity. This made me look out for a northwest drift. Then Herald Island loomed up in the clouds. On the 6th of September the captain judged that we had reached the lead between the Siberian and North American packs, and that this was a good place to enter. He took charge from the crow's nest and we entered the pack. We met with the young ice, and through this we forced our way by ramming. This shook the ship very badly, but did not do her any damage; indeed, the ship stood the concussions handsomely. But at 4 p. m. we could proceed no further. We banked fires, secured the vessel with ice anchors and remained. That night was exceedingly cold. The ship was frozen in. At this time the ice was in pieces, ranging from ten square yards to several acres in area, with small watercourses like veins running between them, but now quite frozen over. It remained quiet for a number of days, and we found ourselves in the middle of a large accumulation of floes about four miles across. We were then in about twenty fathoms of water, and had Herald Island in sight to the southward and westward, twenty-one miles distant by triangulation, on a base line of 1,100 yards.

About the 15th of September First Lieutenant Chipp, Sea Pilot Dunbar, Engineer Melville and the Indian, Alexie, started with a dog sledge for Herald Island. They got within six miles of the beach,

when they found open water before them and were compelled to return. We found the ship drifting with the ice, and with so uncertain a base the captain would not send other persons to the island with boats. The general appearance of the ice at this time was uniform, with here and there almost snowless hummocks appearing above the surface, and between which were pools whereon the men could skate. The deflorescence of salt was like velvet under the feet. From day to day we saw a looming of land to the southwest and sometimes in the clouds. We soon found that the ice always took up the drift with the wind. The ship at this time began to heel to starboard under the pressures, and inclined about twelve degrees. We unshipped the rudder, got up masthead tackles on the port side, with lower blocks hooked to heavy ice anchors about a hundred and fifty feet distant, and set them taut in order to keep the ship upright. The propeller was not triced up, but was turned so that the blades would be up and down the sternpost; the engines were tallowed, but not taken apart. When the ship commenced to heel, the local deviation of the compass increased in the ratio of one and a half degrees duration to one degree of list. This was owing to the vast amount of ironwork, and especially the canned goods, which had to be stowed in the after hold and on the quarter deck. All our compass observations had, of course, to be made on the ice well clear of the ship. At this time, and later on, we noticed that the turning motion of the floe, or change in azimuth of the ship's head was very slow; but the floe did have a cycloidal motion with the wind, and the resultant was in the northwest direction. Our position was not an enviable one. At any moment the vessel was liable to be crushed like an eggshell among this enormous mass of ice, the general thickness of which was from five to six feet, though some was over twenty, where the floe pieces had overrun and cemented together and turned topsy turvy. Pressures were constantly felt. We heard distant thundering of the heavy masses, which threw up high ridges of young ice that looked like immense pieces of crushed sugar.

The month of October was quiet. We had had no equinoctial gales even in September. The cold was very bitter. Wrangell Land was in plain sight to south and west many times, and especially on the 28th and 29th of October, when we could see mountains and a glacier, which we identified on many occasions. Collins took sketches of them. The ship was drifting to and fro with the wind. Up to this time we saw a considerable number of seals and walrus and got two bears. Two white whales were also seen, which were the only ones noticed during the whole cruise. Life on board was quiet but monotonous. We got many observations, especially from the stars. The nights were very clear and suitable for artificial horizon work. We began to find at this time, and by later experience became convinced, that Rear Admiral John Rodgers was right when he said that the sextant, artificial horizon and the lead, were the most efficient and useful instruments in exploring arctic waters, and that transits



and zenith telescopes were not useful, because refined observations could not be obtained and were not necessary in this region. The cold is so great as to affect the instrument, and it is almost impossible to keep the lens free of frost and vapor, thus making the refraction a very indefinite correction. Our experience in this pack was, that the state of the atmosphere was constantly changing. Without a moment's notice the ice would sometimes open near the ship, and vast columns of vapor would rise whenever the difference of temperature between the air and water was great.

The surface water was generally 29° Fahrenheit, the freezing point of salt water.

About the 6th of November the ice began to break up. We had previously observed considerable agitation about the full and change of the moon, and attributed it to tidal action. This was observed particularly when we were between Herald Island and Wrangell Land, and when the water was shoaled—that is, about fifteen fathoms—the ice began to break round the ship, and a regular stream of broken masses gradually encroached upon us. From aloft the floe that had appeared so uniform a few weeks before was now tumbled about, and in a state of greater confusion than an old Turkish graveyard. Tracks began to radiate from the ship, and the noise and vibration of distant ramming were terrific, making even the dogs whine. November 23 was a calm, starlight night. I got good star observations, with Melville marking time, at 11 p. m. I was working them up when a crack was heard, and we found that the floe had split, and that the ice on the port side had drifted off, leaving the ship lying in a half cradle on her starboard bilge. The water looked smooth and beautiful, and there was no noise save that of four dogs which had drifted off with the port ice. We had previously taken in the observatory and had prepared for such an accident; but on the starboard side the steam cutter and the men's outhouse had been left. We got the steam cutter aboard, but left the outhouse standing. This was November 23.

And here let me mention an interesting fact. About sixteen months afterward the Indian, Anequin, came in in a state of great excitement for an Indian generally so stolid, and reported, "Me found two-man house!" He described it as a house large enough for two men; and when asked if he had been inside, said, "No; me plenty 'fraid!" Judge of our surprise. Lieutenant Chipp immediately started with the Indian and others and found the house at a distance of about three miles to the southeast. It proved to be the lost outhouse; thus showing that the relative positions of the pieces in the vicinity were comparatively unchanged.

The next morning, the half cradle on which the port side had rested could be seen about a thousand yards distant, and this immense lead was open, but of very limited length. The appearance of the ice can be likened to an immense cake as it comes from the oven, broken and cracked on the surface. A few mornings later, the

drift ice came down upon us under the starboard bow, and wedged the ship off her cradle, and she went adrift in the gale. This was about eight a. m. She drifted all day until seven p. m., when she brought up on some young ice and was frozen in solid again. It was dark, in the long night, and there was no chance of working the pack had it been good judgment to do so. We reckoned that she had drifted at least forty miles with the ice in her immediate vicinity. Previous to this time the ship had stood the pressure in the most remarkable manner. On one occasion, I stood on the deck house above a sharp tongue of ice that pressed the port side just abaft the fore chains, and in the wake of the immense truss, that had been strengthened by the urgent advice of Engineer-in-Chief William H. Shock, on Mare Island. The fate of the Jeannette was then delicately balanced, and when I saw the immense tongue break, and harmlessly underrun the ship, I gave heartfelt thanks to Shock's good judgment. She would groan from stem to stern; the cabin doors were often jammed so that we could not get out in case of emergency, and the heavy truss was imbedded three quarters of an inch into the ceiling. The safety of the ship at that time was due entirely to the truss. The deck planking would start from the beams, showing the unpainted wood for more than half an inch. This, together with the sharp cracking of the ship's fastenings, like the report of a discharge of rifles, would wake us at night. Each man kept his knapsack by him ready for an instant move, and preparations were made for leaving the ship with sleds and boats if necessary.

CHAPTER III.

AN ARCTIC NIGHT—LIFE IN THE SHIP—HOW THEY LIVED—VESSEL WRECKED
AND LEAKING—FREEZING SOLID—THE MEN PROVE STOUT HEARTED—
CANNED BEEF BAD—RIG A WINDMILL PUMP—TEN MILES A MONTH—
WRANGELL LAND AN ISLAND.

Several gales, the heaviest being about fifty miles an hour, occurred in the fall of 1879. The long night commenced about the 10th of November, and all the winter routine commenced. At seven, call all hands and start fires in the galleys; at nine, breakfast; from eleven to one, guns given to all hands to hunt and for exercise on the ice; at three p. m., dinner, then galley fires put out to save coal; between seven and eight, tea, made from the Baxter boiler, which was used constantly to condense water, we having found that the floe ice was too salt for use, and the doctor insisted on using condensed water. This boiler was originally intended for the electric light, but it was found that we could not afford to run the light, so we used the coal in condensing water. Twenty-five pounds of coal per day was

allowed for heating the cabin, twenty-five pounds for the forecabin, and ninety pounds for ship's galley for cooking purposes. We lived on canned goods, with bear and seal twice a week, pork and beans and salt beef once a week; no rum or spirits, except on festive occasions, two or three times a year. The discipline of the ship was excellent, and during the whole twenty-one months in the pack there was but one punishment given, and that was for profanity. The crew were well quartered in berths, and were comparatively happy; had navigation class and theatricals. The health of all was excellent, and there was a special medical examination the first of every month.

Things went on in this fashion until the middle of January, when there were tremendous pressures, and the floes actually backed up into mounds under the strain, the ice being very tough and elastic. The heaviest strain came in the stem of the ship, in a longitudinal direction. There was also a heavy lateral strain, especially under the starboard main chains. About nine o'clock one morning a man went down into the fire room on duty, and found the fore plates covered with water; he immediately reported the fact, and all pumps were started. The temperature was below 42 degrees Fahrenheit (the freezing point of mercury). Mr. Melville had great difficulty in getting up steam and starting the donkey pumps, but succeeded admirably, the men working with their feet and legs in ice water, and everything frozen and freezing solid. It was found that the vessel leaked badly in the bows, and we supposed that the hooding of the planks had been started at the stem, and it was not until the last day, June 12, 1881, that we discovered that the forefoot had been twisted to starboard.

The carpenter (Sweetman), with Nindermann, worked day and night, and (under the direction of Lieutenant Chipp) built a bulkhead forward of the foremast, which partially confined the water. Melville rigged an economical pump with the Baxter boiler, and the ship was pumped for nearly eighteen months. A windmill pump was also made for summer, but the winds were so light that it hardly paid. During the last few months the leak decreased, owing to the ship floating higher, and we had then only to pump once every half hour by hand. The experience of January 19 gave me great confidence in the ship's company, as it was a very severe test on the men. I was confined to my berth at the time, but knew everything that was going on, and the solid and effective work done was very gratifying.

As well as I can remember, about fifteen barrels of flour and some other dry provisions were damaged by this accident. Previous to this, we had to throw away a large quantity of canned roast beef, marked "Erie brand," it having proved bad. The coldest weather occurred in February, 1880, being 58 degrees. There were also some great and remarkable changes of temperature in the course of the day.

About the middle of February we were found to be about fifty miles from the place where we had entered, and Herald Island was

said to have been in sight during one day. During these five months we had drifted over an immense area, approaching and receding from the 180th meridian, but I do not think we crossed it at that time. We continued to drift in this uncertain manner. We noticed that the ship always took up a rapid drift with southeast winds, and a slow drift with northeast winds, owing, doubtless, to Wrangell Land being under our lee. Southwest winds were not frequent.

At times land was reported to the northeast, but nothing trustworthy. Some observers were constantly seeing land at all points of the compass, and many was the trip that the navigator and the ice pilot had to make to the crow's nest in vain. We were very much disappointed at not being able to shift for ourselves, and up to this time we had only demonstrated to our satisfaction that Dr. Petermann's theory in regard to Wrangell Land being a portion of Greenland, was no longer tenable, for its insularity was evident, as subsequently proved.

CHAPTER IV.

COLLINS' TRUE PREDICTIONS—EXPLOSIVES USELESS TO BREAK UP ICE.

March and April, 1880, were passed quietly, and we were surprised at not having any March gales. The geese and wild fowl that some of us expected to see on their spring migration, did not put in an appearance. One poor eider duck fell exhausted near the ship, and one of our sportsmen shot at it, and after administering chloroform it succumbed. There were some birds seen later in the season moving to the westward, but they were not numerous. A great many mussel shells and quantities of mud were often found on the ice, which indicated that it had been in contact with land or shoals. Our hunters ranged far and wide, and often brought in small pieces of wood—on one occasion a codfish head, and on another some stuff that was very much like whale blubber, all of which had been found on the ice.

On May 3, fresh southeast winds began, and the ship took up a rapid and uniform drift to the northwest. Now Mr. Collins began to predict, and told me several times that these winds would continue till the early part or the middle of June, and would be followed by constant northwest winds for the balance of June. This prediction was fully realized, and in the month of June we actually drifted back over the May track. During July and August there was scarcely any wind, and the weather was misty and raw, it being the most unpleasant time of the year, the coldest weather not excepted. The damp and fog and cold struck chill to the bones, and we could not afford to heat the ship as we did in winter. The ice seemed to absorb all the heat from the sun during the melting period of the year. The

snow disappeared from the surface of the floe about the middle of June, and the best travelling period over the floe was considered to be between the middle of June and the middle of July. But this was a subject for constant discussion among the savans, among whom Mr. Dunbar was the most experienced, he having been an old traveller in the Baffin's Bay region. A considerable number of birds, principally phalaropes and guillemots, were shot, and very much appreciated at dinner. On the subject of natural history, however, Mr. Newcomb can tell you more than I. The surface of the floe pieces was now of a hard, greenish blue, and flinty, being covered in many places with thaw water. There were numerous cracks near the ship, but no leads that went in any definite direction, and there was no chance to move, for the ship was imbedded in the ice so firmly, that a whole cargo of explosives would have been useless. Lieutenant Chipp, an experienced torpedo operator, made torpedoes, and all the arrangements for taking advantage of the first opportunity to free the ship. But the opportunity never came.

CHAPTER V.

AURORAL OBSERVATIONS—SUMMER WEATHER—BEAR HUNTS—FEROCIOUS BEAR SHOT THROUGH THE HEART—VISITED BY A BIG SHE BEAR AND TWO CUBS.

Mr. Chipp was an accomplished electrician, and during the whole time in the ice he took up the subject recommended by the Smithsonian Institution to the Polaris expedition—namely, observations of the disturbances of the galvanometer during auroras. He had wires laid out over the ice, and earth plates in the water; and the galvanometer in the current, and obtained over two thousand observations during auroras, which he intended to turn over to a specialist for purposes of analysis and judgment. He always found disturbances of the needle coincident with the most brilliant auroras. He also ran the telephones, which, however, gave a great deal of trouble, owing to the wires being broken by the wind and the ice movements. Those on the ship, of course, were all right. During my sickness, he also made observations of the eclipses of Jupiter's satellites, and got some excellent results for chronometer errors by using an improved ship's telescope mounted on a barrel. He afterward used the transit telescope similarly mounted. This was the best data for our chronometers, being far superior to lunar observations.

The summer weather was very bright and pleasant for about fifteen days in July, and when the thermometer was above 40 degrees Fahrenheit, we called it a warm day; but the latter part of July and August was particularly bad, being foggy and raw.

During the first year we got sufficient game for table use, and seal

skins for clothing for the men, but this necessitated a great deal of hunting, and there was a great scarcity of game in this region. On many occasions I heard the statements in "The Threshold of the Unknown Regions" criticised. In it the author says, that "this part of the ocean is teeming with animal life," and "that navigable polynias are numerous." The seal most frequently obtained was the species called by Lamotte the "floe rat," and averages about sixty pounds in weight, and thirty to forty pounds when dressed. The men generally made up the skins into boots and trousers. The meat was not pleasant to the taste, and it required the strongest philosophy to enable one to eat it at all. It is a strange fact, that fossil remains of seals of this species have been found in the hills of Scotland. So says Lamotte. Walruses were scarce, the depth of water being a little too great for them, as they seldom inhabit depths of more than fifteen fathoms. We got six, however, which furnished excellent food for the dogs, and our Chinese cook was an adept in making walrus sausage for our *cuisine*. Bear chases were frequent and exciting, and about fifteen animals were obtained the first year. Mr. Dunbar was the champion bear slayer, and was always ready for a keen jump when game was reported. During the first winter a tremendous bear approached the ship about midnight, drove the dogs in, and attempted to board us over the port gangplank. The alarm was given. Mr. Dunbar was on deck instantly, with rifle in hand, and shot the bear through the heart at ten paces. It was probably the biggest and most ferocious bear secured on the cruise, and he had been attracted by the quarters of his comrade that were triced up in the fore rigging. A few foxes were seen, and their tracks quite frequently observed. They seemed to either accompany or follow the bears, like pilot fish with the sharks and jackals with their ferocious and stronger friends.

During the summer some of us used to take the skin boats or the dingy and paddle among the cracks. On one occasion Captain De Long was alone in the dingy and was interviewed by a bear, who suddenly approached out of the mist and stood watching him in the most dignified manner. The captain retreated in good order. During the summer it was very difficult to get bears, because they could take to the water so readily and thus cut off their pursuers. During the misty times they were very bold, and on one occasion a she bear with two cubs approached the ship to within 400 yards of the starboard quarter. Fortunately the dogs were on the port side and to windward, so they did not scent the bear. The greatest quietness prevailed, and a squad of about ten riflemen was immediately organized on the poop. I was watching the bears through a cabin air port, and it was a very fine sight to see the mother and her two cubs approach the ship in a wondering and cautious manner. I could see better under the mist than the people on the poop. Heard the captain say:

"Do any of you think it is over 250 yards?"

All seemed to agree, and he said :

"Aim at 250 yards, and wait for the word 'Fire!'"

Then succeeded a volley. The bears reeled and made several turns, and I thought that we had bagged all of them, but was astonished to see them get up and walk off in the most lively manner. Of course, all the dogs took the alarm and pursued them to the first crack, which the bears calmly swam across and thus escaped. But large drops of blood were seen, and the she bear lay down once or twice as if wounded. In making her retreat, she drove her cubs before her, and became impatient when they moved slowly. The bears had been hit, but the distance had been underestimated, and most of the shots had fallen short. This was not extraordinary, because it was very misty.

After this one year of experience in the ice, we concluded that the general motion of the ice was due principally to the wind, and that the resultant of the winds was from the southeast. Some of us talked about the polar region being covered with an immense "ice cap," which seemed to have a slow, general movement in the direction of the hands of a watch, the direction of the drift, of course, being different in the different segments. The influence of Wrangell Land would be to impede the drift of the segment lying to the northward and eastward, and I imagined that there must be a constant strife between Wrangell Land and the solid phalanx of ice from the northeast. This polar ice cap we know throws off in its revolutions millions of acres every year through the gates of Robeson's Channel, and between Iceland and Greenland. A branch of the Gulf Stream attacks it from the Spitzbergen side, and its influence is felt as far as the North Cape of Asia. The general motion of this "cap" must be very slow, but the local motions, of course, depend upon the depth of the ocean and the vicinity of land, and near nature's outlets it is very rapid.

Melville gave me lots of food for reflection. He analyzed all data obtainable from the Hydrographic Office reports and arctic literature, and marked on the circumpolar chart with arrows the currents as reported by various navigators as well as those mentioned in the theories of distinguished geographers. We constantly discussed the question, and both felt assured that if the ship could remain intact long enough, she would eventually drift out between Spitzbergen and Bear Island to Atlantic waters. A very high latitude would doubtless be attained, and would depend, in a great measure, on the influence of Franz Josef's Land upon the motion of the pack. If the ship passed to the southeast of it, the local motion to the southwest might be very rapid by the pack impinging on those lands, and if passing to the northward, the pack would be deflected toward the pole, and a very high latitude would be obtained, supposing no polar continental land to exist. It is my opinion, that had we entered the pack 200 miles to the eastward of where we did, we could have worked up near Prince Patrick Land, for Collinson found the deepest water over



there to the eastward, and sounded with 133 fathoms without finding bottom.

Our smallest depth the first year's drift was seventeen fathoms, and the greatest depth not over sixty, the average being generally thirty, and the ocean bottom usually uniform, with blue mud and in some cases shale, something like round pieces of potato cut thin and fried, and supposed to be meteoric specimens. We felt pretty sure that we would continue to drift to the northwest during the following year, but were not sure what influence the peculiar coast line in the vicinity of the North Cape would exert, it being in the form of an elbow, and must therefore have great influence on the general motion of the pack.

From the fact that the spars of the *Shenandoah's* devastations drifted to Herald Island, and that the whaling bark *Gratitude* had been last seen drifting to the northwest in that vicinity, we augured that there must also be some northwest current; but we have no other evidence of a current except the formation of banks and shoals in the vicinity of Herald Island, which may be similar to the formation of the Grand Banks, by the ice bringing earthy matter there. The locality east-northeast of Wrangell Land may be regarded as the arctic doldrums, as far as drift is concerned. We also considered the possibility of drifting down the western side of Wrangell Land, and then, again, perhaps once more being able to shift for ourselves.

The general health of the ship's company was excellent, and we looked forward coolly, but not without some anxiety, to the long night of the second winter, during which time we might at any instant be rendered homeless and at the mercy of the arctic fiends.

CHAPTER VI.

PERILOUS LAY OF THE SHIP—PILED UP ICE—LOOKING FOR SECOND WINTER—AT THE MERCY OF THE ICE—IN WINTER QUARTERS—MELVILLE'S CANAL—HUNTING EVERY DAY—CREW IN BAD HEALTH.

"It will be well," continued the lieutenant, "to describe the situation of the ship and our prospects at the beginning of September, as they appeared to us, for the approaching winter. The ship was firmly imbedded in ice of about eight feet in thickness; but there were immense masses shoved under her keel, and the bows were lifted so that the keel was inclined about one degree, the ship at the same time heeling to starboard two degrees, and so firmly held in this gigantic vice, that when the blacksmith struck his anvil in the fire-room, one could see the shrouds and stays vibrate, and they were not

very taut. Our executive officer had slackened up the rigging during the first winter, as the contraction of wire rigging by the intense cold was, of course, very great. The ice was piled up under the main chains and as high as the planksheer. In the vicinity of the ship the ice was tumbled about in the greatest confusion, and travelling over it was almost an impossibility. In the latter part of September, when the cracks froze over, came the best time for travel, but the outlook was poor. There was comparatively little snow, and what there was was constantly blown by the wind and rendered salt by attrition on the surface of the ice, so that we could not use it for culinary purposes. The captain was very favorable to fall travelling, and he several times expressed himself to the effect that he would not abandon the ship while there was a pound of provisions left, and we generally understood that he would hold on a year longer, and probably start when the fall travelling commenced, a year later. We all considered that if our provisions held out long enough, if we were not attacked by scurvy, and if the ship were not crushed by the ice, we should eventually drift out after reaching the vicinity of Franz Josef Land, either north or south of it. The *morale* of the ship's company was excellent, yet we looked anxiously toward the long night of the second winter, which proved to be the most fearful part of our experience. The anxiety and mental strain on many of us were the greatest at that time. We were so completely at the mercy of the ice, the vessel might be crushed at any moment by the thundering agencies that we constantly heard.

"In the month of September the ship was put in winter quarters for the second time. She was banked up with snow, the deck house was put up for the use of the men, and the awning spread so that the spardeck was completely housed over. Economy and retrenchment were the order of the day in fuel, provisions and clothing. The old winter routine of meals, two hours' exercise, and so on, commenced on November 1, and all was going well. November and December were extremely cold, but we had no severe gales that I remember. The meteorological observations were taken every hour during the first year, but every two hours only during the second. They were very thorough, and Mr. Collins was very watchful to add something to the science to which he was so thoroughly devoted. During my sickness, the captain and Mr. Chipp took the astronomical observations, but each officer in the ship had a round of duty as weather observer, and to assist Mr. Collins. There was a quartermaster on watch all the time, and steam was kept on the Baxter boiler for distilling purposes. To save coal, fires were put out in the galley at 3 p. m., being used only from 7 a. m. till that hour. The month of January was remarkable for its changeable temperature, and as being warmer than the two previous months.

"About the middle of the month the wind set in from the southeast, and subsequently to that time the drift of the ship was uniformly to the northwest. The depth of the water began to increase toward the

northwest, but would always decrease toward the southeast or southwest, as well as to the northeast. The vessel seemed to drift in a groove, which we called Melville's Canal, as he was the first to call attention to the fact. Mr. Chipp took the soundings every morning, and by long experience we could judge of the drift so accurately that his dead reckoning generally tallied with the observations. He adopted a scale by which 'slow' drift meant three nautical miles per day; 'moderate,' six miles; 'rapid,' nine miles; 'very rapid,' twelve miles. He always reckoned the direction and speed of the drift, and placed the ship before making the observation. His judgment was excellent. He and the captain made frequent lunar observations for chronometer errors, but those of the eclipses of Jupiter's satellites were the best. February was the coldest month; and the mean for the three months was only six degrees lower than that for the same months during the previous year. The soundings generally ran thirty-three, but one morning Mr. Dunbar sounded in forty-four; some called that place Dunbar Hole. We drifted over this spot once again at a later period. The absence of animal life prior to May was greater than during the previous year. All hands hunted every day, especially as the doctor wanted fresh meat for the Indian Alexie, who was said to have the scurvy, and suffered very greatly from abscesses on his leg. On May 1, Dr. Ambler reported the physical condition of the crew rapidly deteriorating, and six or seven were placed on whiskey and guinine to tone them up. The weather at this time was good, and there were no spring gales. Of course when I say 'good,' it is in an arctic sense.

"During the month of May, old man Dunbar was always in the crow's nest, and got blind several times. The old gentleman was looking out sharp for land, and about the 16th of May he was the first to announce it in sight. You can imagine the excitement it caused, for we had not seen land for many months, and had not set foot upon it for nearly two years."

CHAPTER VII

LOG BOOK OF JEANNETTE KEPT BY CAPTAIN DE LONG—LAND SEEN FROM ALOFT—DISCOVERY OF JEANNETTE ISLAND—CUTTING THROUGH ICE—FLOES GIVE WAY—HENRIETTA ISLAND.

Captain De Long made his entries always with two dates—that is, he did not advance one day on crossing the 180th meridian to east longitude, because he expected to drift back again to west longitude, as they had often done before. He always clung to the idea that he

would experience a northeast drift sooner or later and recross that meridian. I therefore give the proper date for the geographical position. I also add from the log, not only the official record of the discovery of these islands, but continue it to the last page, on which an entry was made by Captain De Long in lead pencil:

Log of the United States arctic steamer Jeannette, beset and drifting in the pack ice about five hundred miles northwest of Herald Island, Arctic Ocean:

TUESDAY, *May 17, 1881*.—Latitude by observation at noon, north 76 deg. 43 min. 20 sec.; longitude by chronometer from afternoon observations, east 161 deg. 53 min. 45 sec.; sounded in forty-three fathoms; muddy bottom; a slight drift northwest being indicated by the lead line; weather dull and gloomy in the forenoon; close, bright and pleasant in the afternoon. At 7 p. m. land was sighted from aloft by William Dunbar, ice pilot, and bearing south 78 deg. 45 min. west (magnetic), or north 83 deg. 15 min. west (true). It appears to be an island. But owing to fog hanging partly over it and partly to the northward of it, no certainty is felt that this is all of it. It is also visible from the deck, but no estimate can be made of its distance.

As no such land is laid down upon any chart in our possession, belief that we have made a discovery is permissible.

This is the first land of any kind seen by the ship since March 24, 1880, at which date we saw for the last time the north side of "Wrangell Land."

WEDNESDAY, *May 18, 1881*.—Latitude north 76 deg. 43 min. 38 sec.; longitude east 161 deg. 42 min. 30 sec.

The land sighted yesterday remains visible all day, but with greater clearness. We are now able to determine its shape with greater exactness.

The clouds of yesterday, or fog bank as then called, having disappeared from the upper part of the island, we are able to see apparent rocky cliffs, with a snow covered slope extending back to the westward from them, and terminating in a conical mass like a volcano top.

THURSDAY, *May 19, 1881*.—Latitude 76 deg. 44 min. 50 sec. north; longitude 161 deg. 30 min. 45 sec. east.

Crew engaged in digging down through the ice on the port side of the stem in an effort to reach the forefoot. The ice was first bored to a depth of ten feet two inches without getting to the bottom of it; next a hole was dug four feet in depth, and from the bottom of this hole a drilling was made to a depth of ten feet two inches, still not reaching the bottom of the ice at fourteen feet two inches; but water now came oozing in to fill up the space dug, and further effort was not made. It is fair to assume that the thickness is of more than,

one floe, and that the water flows in between the blocks as they lie one above the other.

An opening occurred in the ice about five hundred yards to the eastward of the ship and partially closed at 10 p. m., the ship receiving several slight shocks as the edges of the ice came together.

The island remains in plain view all day, and at times after 6 p. m. a very strong appearance of higher land beyond and to the westward is seen, seemingly connected by a snowy slope with what we have called an island.

FRIDAY, *May 20*.—The island remains in plain view all day, though nothing can be seen of the high land beyond, the strong appearance of which is noted in yesterday's log.

The centre of the island now bears west (true), but as no observations could be obtained to-day, its position and distance cannot be determined by the change of bearing.

SATURDAY, *May 21*.—Latitude north 76 deg. 52 min. 22 sec.; longitude east 161 deg. 7 min. 45 sec. The point of the island which on the 16th inst. bore north 83 deg. 15 min. west (true), to-day bears south 78 deg. 30 min. west (true), from which change of bearing it is computed that the island is now twenty-four and three fifths miles distant. The position of the observed point is therefore latitude 76 deg. 47 min. 28 sec. north; longitude 159 deg. 20 min. 45 sec.

From measurement made by a sextant, it is found that the island as seen to-day subtends an angle of 2 deg. 10 min.

MAY 21 TO 23.—No mention of the island made.

WEDNESDAY, *May 25*.—Latitude north 77 deg. 16 min. 3 sec.; longitude east 159 deg. 33 min. 30 sec.

At 8 a. m. the ice was found to have opened in numerous long lanes, some connected and some single, extending generally in north-northwest and south-southeast direction. By making occasional portages, boats were able to go several miles from the vessel, but for the ship herself there were no ice openings of sufficient magnitude.

The strong appearance of land mentioned on the 19th inst. proves to have been land in fact, and for reasons similar to those herein set forth (in the remarks of the 17th inst.), it may be recorded as another discovery. The second land is an island, of which the position and present distance are yet to be determined. The following bearings were taken:

Ship's head, S. 14 deg. W. (true); eastern end of island first seen on 17th, S. 17 deg. W. (true); nearest end of island seen to-day, S. 69 deg. 30 min. W. (true).

The following sextant angles were taken from the crow's nest:

Island first seen subtends an angle of 2 deg. 42 min.; island first seen has an altitude of 0 deg. 16 min. Island seen to-day subtends an angle of 3 deg. 35 min.; island seen to-day has an altitude of 0 deg. 10 min. Interval between two islands, 49 deg. 55 min.

THURSDAY, *May* 26.—No observations. Crew engaged in digging a trench around the vessel, and after 4 p. m. in getting up provisions, etc., in readiness for a sledge party directed to leave the ship tomorrow morning.

CHAPTER VIII

SLEDGE PARTY OFF—SHIP LIFTS IN HER ICE BED—TRAVELLING PARTY—
HOIST U. S. FLAG ON HENRIETTA ISLAND.

WEDNESDAY, *June* 1.—No observations. At 9 a. m. a party, consisting of Passed Assistant Engineer G. W. Melville, Mr. William Dunbar, W. F. C. Nindermann (seaman), H. H. Erickson (seaman), J. H. Bartlett (first class fireman), and Walter Sharvel (coal heaver), started to make an attempt to land upon the island discovered by us on the 25th ult., and which bears southwest-half-west (true) at an estimated distance of twelve miles. They carried with them the light dingy, secured upon a sled drawn by fifteen dogs, and provisions for seven days, beside knapsacks and sleeping bags and arms.

All hands assembled on the ice to witness the departure, and cheers were exchanged as the sled moved off. At 6 p. m. the travelling party could be seen from aloft at about five miles distant from the ship.

THURSDAY, *June* 2.—Latitude 77 deg. 16 min. 14 sec. north. During the forenoon the travelling party was in sight from aloft, seemingly more than half way to the island.

SATURDAY, *June* 4.—Latitude 77 deg. 12 min. 55 sec. north; longitude 158 deg. 11 min. 45 sec. east. From the cracked appearance of the ice around the stern, it would seem that the ship is endeavoring to rise from her ice dock. To facilitate her rising and to relieve the strain upon the keel under the propeller, the men were engaged forenoon and afternoon in digging away the ice under the counters and in the neighborhood of the propeller well. The said ice is of a flinty hardness, and clings so closely to the ship as to show the grain of the wood and to tear out the oakum, visible where the ship's rising has left open spaces.

Bearings of the island toward which the travelling party was sent: South end S. 52 deg. W. (true). North end S. 61 deg. W. (true).

SUNDAY, *June* 5.—No observations. At 11 a. m. started a fire on the ice ahead of the ship, adding tar and oakum, to make a black smoke as a signal of our location to the absent travelling party. At 4 p. m., the weather being foggy, fired a charge from the brass gun and one from a whale gun as a similar signal. Carpenters pushed repairs to steam cutter.

MONDAY, *June* 6.—No observations.

At 10 a. m. called all hands to muster and read the act for the government of the navy. The commanding officer then inspected the ship. At 1.30 p. m. divine service was read in the cabin. At 6 a. m. sighted the travelling party making their way back to the ship; sent the starboard watch out to assist them in. At 9 a. m. the sled arrived alongside, drawn by the dogs and accompanied by Nindermann, Erickson and Bartlett. Mr. William Dunbar, ice pilot, was brought in by this party, having been disabled by snow blindness. At twenty minutes of 10 a. m., Engineer Melville and Walter Sharvel, coal heaver, with all remaining travelling gear, arrived on board.

The party landed on the island at 5.30 p. m., on Friday, June 3, hoisted our national ensign and took possession of our discoveries in the name of the United States of America.

The island discovered on May 17 has been named, and will hereafter be known, as Jeannette Island. It is situated in latitude 76 deg. 47 min. north, and longitude 158 deg. 56 min. east.

The island discovered on May 25, and landed upon as above stated, has been named, and will hereafter be known as Henrietta Island. It is situated in latitude 77 deg. 8 min. north, and longitude 157 deg. 43 min. east.

TUESDAY, *June 7, 1881.*—Latitude 77 deg. 11 min. 10 sec. north; longitude, no observations.

In anticipation of our floe breaking up and our being launched into the confusion raging about us, hoisted the steam cutter, brought aboard the kayaks and oomiaks and removed from the ice such of our belongings as could not be secured at a few moments' notice.

WEDNESDAY, *June 8.*—No observations.

So thick was the fog until 10 a. m. that our position with reference to Henrietta Island could not be determined, but at that hour the fog cleared away, and the island was sighted right ahead, and at a distance of about four miles. As indicated yesterday, we were being drifted across the north face.

The large openings near us have closed, and the general appearance of the ice to west and northwest is that of an immense field broken up in many places by the large piles of broken floe pieces, but with no water spaces.

Considerable water sky is visible to the south and southwest, and several unconnected lanes of water are to be seen in those directions. The ice having passed the obstruction caused by Henrietta Island, has closed up again, and resumed its accustomed drift to the northwest.

FRIDAY, *June 10.*—Lat. N. 77 deg. 14 min. 20 sec.; lon. E. 156 deg. 7 min. 30 sec.

The following bearings were taken of Henrietta Island at 5.20 p. m.: Ship's head S. 13, 30 W. (true); S. W. point of island S. 59, 24 E.; second cliff S. 64, 30 E.; Blackhead S. 66, 30 E.

CHAPTER IX.

THE WORST AT HAND—SHIP AFLOAT AGAIN—ICE RAGING—HOPE BLASTED
—THE NEW FOUND ISLANDS—DUNBAR'S BLINDNESS—BEGS TO BE LEFT
ON THE ICE.

At 11 p. m. the ship received several severe jars. At 11.30 the ice, eighty yards to the westward, opened to a width of ten feet, and, after several shocks from the ice, the ship was found to have risen an inch forward. At midnight there was considerable motion to our surrounding floe, and strong indications of a breaking up of the ice alongside the ship.

SATURDAY, *June 11* (last entry on the log, in pencil).—Latitude 77 deg. 13 min. 45 sec. north; longitude 155 deg. 46 min. 30 sec. east.

At 12.10 a. m. the ice suddenly opened alongside and the ship righted to an even keel. Called all hands at once and brought on the few remaining things on the ice. The ship settled down to her proper bearings nearly, the draught being 8 feet 11 inches forward and 12 feet 5 inches aft. A large block of ice could be seen remaining under the keel. At the first alarm the gate in the water tight bulkhead forward was closed, but the amount of water coming into the ship was found to decrease—a small stream trickling aft being all that could be seen.

There being many large spaces of water near us, and the ice having a generally broken up appearance, it was concluded to ship the rudder, to be ready for an emergency involving the moving of the ship. After some trouble in removing accumulations of ice around the gudgeons, the rudder was shipped and everything cleared away for making sail.

As well as could be judged by looking down through the water under the counters, there was no injury whatever to the afterbody of the ship. As soon as possible a bow line and a quarter line had been got out and the ship secured temporarily to the ice, which remained on the starboard side, as nearly in the same berth as she could be placed. By looking down through the water alongside the stern, on the port side, one of the iron straps near her forefoot was seen to be sprung off, but otherwise no damage could be detected. It was assumed by me that the heavy ice which all along bore heavily against the stern had held the plank ends open on the garboards, and that as soon as the ship was able to move from this heavy ice the wood ends came together again, closing much of the opening and reducing the leak. The water line, or rather water level, being below the berth deck, no difficulty was anticipated in keeping the ship afloat and navigating her to some port, should she ever be liberated from the pack ice of the Arctic Ocean.

Sounded in thirty-three fathoms, bottom mud, rapid drift to north-northwest.

GEORGE W. DE LONG,
Lieutenant United States Navy, Commanding.

Lieutenant Danenhower continued: Jeannette Island was not landed on, but the astronomical position of it could and doubtless was well established from the data obtained by Captain De Long. It was by triangulation on the base established by observation, on different days, the ship having drifted rapidly and giving a long base line, the extremities of which were established by artificial horizon and sextant observations. I was confined to my room at the time of the discovery, but every item of it was brought to me by Dunbar, Melville and Chipp, and everything was so minutely described to me that I could almost see the land through the ship's side. I understood Jeannette Island to be small and rocky. The southern end appeared high, and the land sloped down to a low point to the northward when the island was first seen, but subsequently mountains behind the low point were observed, and from this fact the island was adjudged to be more extensive than at first supposed. Sketches were made whenever the island was in sight, but it would have been foolish to have attempted a journey to it, for the drift of the ship was too rapid and the state of the ice so changeable. A few days afterward Henrietta Island hove in sight and appeared extensive. The drift of the ship seemed arrested by the northeast extremity of the island. Lieutenant Chipp was sick abed, with what afterward proved to be tin poisoning, and I was confined to my room with my eyes.

So Mr. Melville had the good fortune to be the first to visit Henrietta Island, and he did his work admirably. When he left the ship the captain judged the island to be from twelve to fifteen miles distant, it appeared so plain, but he had not yet triangulated for it, owing to the state of the weather. The journey from the ship to Henrietta Island was one of the hardest on record. Melville had to travel over immense masses of broken ice that were constantly in motion, and in most cases the dogs were worse than useless. He landed in a state of exhaustion, took a short run on the island and then ordered the men to turn in. He intended to sleep until 10 o'clock the next morning, but was probably anxious, and when he turned out his watch said 7 o'clock, but it was probably p. m. In his anxiety he had slept only an hour and a half or two hours. The men said that they felt as if they were just going to sleep. Feeling confident, however, that they had passed the twelve hours in their sleeping bags, he finished the examination of the island and started back to the ship, and was surprised on his return that he had gained twelve hours in time. This was not surprising from the fact that during his visit to the island he did not see the sun but once, at which time Erickson said, "The sun is west, sir, and it is morning with us." So Mr. Melville on his return had a suspicion that his time was "out."

During this trip Mr. Dunbar broke down with snow blindness and had to be carried back by the party to the ship. On the way to the island he went ahead to select the road, and worked so hard and

used his eyes so much that he became thoroughly disabled. The old gentleman felt very badly, it being the first time in his long career that he had ever been physically unequal to the occasion. He begged Melville to leave him, his mortification was so great. But, of course, this was not done. The others bore the trip remarkably well. They had been picked out as the flower of the ship's company.

There was a mountain on the island that the men named after the captain's little daughter—"Mount Silvie;" also another mountain which was called "Mount Chip;" two very bold headlands were called "Bennett Headlands;" one bald cape was called "Cape Melville," in honor of one of the chief engineer's characteristics. There was a low shingle beach cape extending to the northeast that was called Point Dunbar. All these names were given by the sailors who rambled over the island, and we have always called them by the names thus originally given them. At one time the land appeared so near to us that Markman Lee said to me, "Why, I can walk there and back, sir, before dinner." On that day I was able to get on deck, and judged the land to be between twenty and thirty miles distant, and so I advised my friend not to try it. Melville told me that he could not tell the distance he travelled to within ten miles, but that the lowest possible estimate was eighteen and the highest twenty-eight miles. You see his journey back was on a different route, because the ship had drifted and had approached the island in the meantime. He gave me every detail of his trip with great minuteness. The island was bold and rocky, with a small number of birds, principally guillemots, and very little deer moss on the place where he landed. But, of course, we do not know the possibilities of the extensive region to the southwest of the landing point. The island was covered with an ice and snow cap, and the immense glacier near the landing place was gigantic and magnificent. I think Melville got eighteen fathoms close to the island. No seals or walruses were seen, and no traces of bears on the island. No driftwood was seen. Melville built a cairn and buried a square copper case containing copies of the New York *Herald*, brought from New York by Mr. Collins, and a copper cylinder containing official documents, the latter being a record of Captain De Long's determination to stay by the ship to the last moment. He announced in them his determination to stand by the ship as long as possible, as he was in the hope of making a high latitude during the following summer.

CHAPTER X.

OFF THE ICE WAYS—FLOATS ON THE BLUE WATER—DE LONG'S INTENTIONS—LOCKED IN THE ICE—THE JEANNETTE'S LAST STRUGGLE—LAST MEAL ON BOARD—BRAVE EDWARD STAAR.

We were all very glad when Melville got back, for the ice had commenced to swing around the corner of Henrietta Island very rapidly, the land to the westward of Bennett Headlands coming out rapidly, and keeping Collins and Newcomb busily sketching as the view changed. The ship continued drifting to the northwest rapidly until June 10. During this time the ice in which she was imbedded began to crack, and the area of the piece was decreasing rapidly. We knew that the important moment was coming when the Jeannette would be liberated from this cyclopean vice, and that her future would be more hazardous than while in the monster's grip, for it was impossible to shape a course, and she would be momentarily liable to be crushed by the impact of the antagonistic floe pieces, which sent immense masses of ice into the air, and among which the Jeannette would be like a glass toy ship in a railroad collision. About 11 p. m., June 10, I was awakened by the ship's motion. It sounded as if she were sliding down hill or off the launching ways. I was frightened for an instant, but immediately recovered, and jumped out of bed for my clothes. The ship had slid off her bed, after the ice on the port side had opened, with a loud crack. There she floated calmly on the surface of the beautiful blue water.

The Jeannette was finally released from her icy fetters after an imprisonment of twenty-one months—that is almost the entire duration of our voyage—and during which time we had been drifting with the pack. The important point of this drift is that we traversed an immense area of ocean, at times gyrating in almost perfect circles, and it can now safely be said that land does not exist in that area. Of course, the depth and the character of the ocean bed and the drift were also determined, as well as the animal life that exists in this part of the world; also the character of the ocean water, and many other facts of interest, which were finished with the discovery of the two new islands. At this time we had a feeling of pleasure and pride that our voyage had not been entirely in vain, and we felt sure that we could add considerable to the knowledge of this region of the arctic, and if we could have got out safely without loss of life the voyage would have been a grand success. Captain De Long, in my opinion, entered the ice boldly and deliberately, with the intention of trying the most hazardous route to the Pole that has ever been contemplated. When spoken to on the subject within a few days after we found ourselves imprisoned, I stated that to be my opinion, and that he had undertaken the most daring and magnificent venture on record.

To return to the Jeannette. She was floating idly, but, of course, could not proceed, being hemmed in on all sides by almost limitless masses of ice in close contact, and having only a small pool in which she could bathe her sides. The starboard half of her old cradle remained, so she was hauled into it and secured with ice anchors on the bow and quarter to await her chance to escape. The rudder had been previously shipped and the screw propeller had been found to be undamaged, so every preparation was made to move at a moment's notice. On June 11, Henrietta Island was seen for the last time to the southeast of us.

I will now describe the supreme and final moments in the life of the Jeannette. At this period of the cruise I was able to spend one hour on deck, three times a day, for exercise, the last relapse of my left eye having taken place a month previous. I went on deck at 1 o'clock in the afternoon and saw the hunters start out. The day was clear and beautiful; there was a light wind from the northeast, and in some quarters of the horizon it was misty, and very much like in the trade wind regions of the Pacific. A large party was sent out to get seals and guillemots, if possible. My hour was up, and I still lingered on the quarter deck, for the ice on the port side, some twenty-five yards distant, had commenced to move toward us, and I was fascinated by the dangers of the situation. The captain was on deck and immediately hoisted the hunter's recall, which was a big black cylinder at the main truck. They began to come in one by one, and the last ones were Bartlett and Anequin, who were dragging a seal with them. At the time of their arrival the ice was in contact with the port side of the ship, and she was heeling about twelve degrees to starboard with her port bilges heavily pressed. The two hunters approached on the port side, passed their guns to me, and came up by a rope's end that I had thrown to them. The pressure on the ship was terrible, and we knew that she must either lift and be thrown up bodily upon the ice or be crushed. During the whole cruise provisions, tents and boats, with sleds, were kept ready for immediate use, and at this time every step was taken for the impending catastrophe.

About 3 p. m., machinist Lee reported the ice coming through the bunkers, and the captain immediately ordered, "lower away!" men having been previously stationed at the boats' falls, and some provisions put on the ice. Melville immediately contradicted the report, and the captain delayed the order. Thus the ship lay for two hours and a half, the pressure of the ice relaxing at times, and the ship almost righting. Then, again, she would be hove over to twenty-three degrees, and we felt sure there was no longer any hope for her, for she would not lift. There was nothing in the world to be done to assist her at that time. We had to depend upon her shape. I have forgotten to tell you that she, of course, floated much higher than when we entered the pack, and that led us to hope that she would lift easier in the nip, for the pressure of the ice would be below the point her sides commenced to tumble home. On the starboard side, while

she was heeling, the nip was felt on her timber heads, which were the weakest parts of the frame, but on the port side she was pressed below the turn of the bilge. Her fate was practically decided the moment we found she would not lift, and a large amount of provisions and clothing was then placed on the ice in readiness for the catastrophe.

One watch went to supper at 5.30, and the officers had bread and tea in the cabin at 6. I was on the sick list, with eyes bandaged, but told the doctor that I could get the charts and instruments together, and be of assistance. He said he would ask the captain. Each officer kept his knapsack in his room, and most of us thought it was time to have them on deck; but we would not make the move until ordered, for fear of attracting the attention of the crew, who were at work on provisions and boats. While I was taking tea, I saw Dunbar bring his knapsack up and put it in the cabin. Feeling that the moment had arrived, I went for mine, and at the head of the ladder, on my return, the doctor said to me: "Dan, the order is to get knapsacks." It seems that he had stepped below and found water in the wardroom, which he reported to the captain, and the order was then given to abandon the ship. The national ensign was hoisted at the mizzen, and Captain De Long was on the bridge directing the work. Lieutenant Chipp was confined to his bed. I threw my knapsack over the starboard rail and returned for clothes, but on stepping into water, when half way down the wardroom ladder, I realized that the ship was filling rapidly. The doctor and I then carried Chipp's belongings out, and I was told to take charge of the medical stores, especially the liquor. The ship in this condition was like a broken basket, and only kept from sinking by the pressure of the ice, which, at any moment, might relax and let her go to the bottom.

The crew worked well, and Edward Staar, seaman, especially distinguished himself. He was doing duty at the time as paymaster's yeoman, or "Jack of the Dust." The order was given to get up more Remington ammunition, and he went into the magazine when the ship was filling rapidly, and succeeded in getting two cases out. This man was in Lieutenant Chipp's boat afterward. We always thought him a Russian, but he spoke English very well, and never would speak of his nationality; but during his dreams he talked in a language that was neither English, French, German, Swedish, Spanish nor Italian, and most of the men thought it was Russian. He was an excellent man, and a giant in strength. The captain thought a great deal of him, for he served him faithfully in every responsible position.

CHAPTER XI.

CREW ON THE ICE—THE CAPTAIN'S LAST GOOD-BY TO THE SHIP—
ALMOST ALL SWAMPED—THE BOATS MANNED—"BEGINNING OF THE
END"—THE RETREAT OVER THE TRACKLESS ICE.

When the order was given to abandon the ship, her hold was full of water, and as she was heeling twenty-three degrees to starboard at the time the water was on the lower side of the spar deck, I hope that our friend, the *London Standard*, will not now think that we deserted her and left her adrift in the Arctic, as was stated in one of the issues of that paper. We had a large quantity of provisions on the ice about a hundred yards from the ship, but Mr. Dunbar, who was alive to the occasion, advised the shifting of these to an adjacent and more favorable floe piece. It took us till 11 p. m. to effect the removal. We also had three boats—namely, the first cutter, second cutter, and the whaleboat. As soon as Dr. Ambler had looked out for Chipp, he relieved me at my post, and I went to work with No. 3 sled party, which I had been detailed previously to command. The order was given to camp and get coffee, so we pitched our tent abreast of the whaleboat, and I set about fitting out for the retreat.

While waiting for coffee, I walked over to the ship to take a final look at her, and found the captain, Boatswain Coles and carpenter Sweetman on the port side, looking at her underwater body, which was hove well out of water. I observed that the ship's side, between the foremast and smokestack, had been buckled in by the pressure, and that the second whaleboat was hanging at the davits, and also that the steam cutter was lying on the ice near by. Coles and Sweetman asked the captain if we could lower the second whaleboat, and the captain said, "No." The three boats, however, were considered enough, and while journeying on the ice, we afterward found Chipp's boat to be the favorite with all hands, because she was considered short and handy, with sufficient carrying capacity for eight men. I then suggested to the men to return to the camp, for the captain doubtless wished to be alone with the *Jeannette* in her last moments.

We then returned to the camp together, having to jump across numerous wide cracks, and from piece to piece, and soon after the watch was set and the order given to turn in. Most of us obeyed the order promptly, and were just getting into our bags, when we heard a crack and a cry from some one in the captain's tent. The ice had cracked immediately under the captain's tent, and Erickson would have gone into the water but for the mackintosh blanket in which he and the others were lying, the weight of the others at the ends keeping the middle of it from falling through. The order was immediately given to shift to another floe piece, which Mr. Dunbar selected for us. This was about three hundred yards from the untenable

ship. After about two hours' work we succeeded in shifting all our goods and our three boats to it. We then turned in.

About 4 o'clock I was awakened by seaman Kuehne calling his relief, fireman Bartlett, who was in our tent. Kuehne called to Bartlett that the ship was sinking, and the latter jumped to the tent door and saw the spars of the Jeannette after the hull was below the surface. We heard the crash, but those were the only two men who saw the vessel disappear. It was said that the ice first closed upon her, then relaxing, allowed the wreck to sink; the yards caught across the ice and broke off, but being held by the lifts and braces were carried down—depth, thirty-eight fathoms, as I remember. The next morning the captain and others visited the spot, and found only one cabin chair and a few pieces of wood—all that remained of our old and good friend the Jeannette—which for many months had endured the embrace of the arctic monster. The Jeannette sank about 4 o'clock of the morning of Monday, June 13.

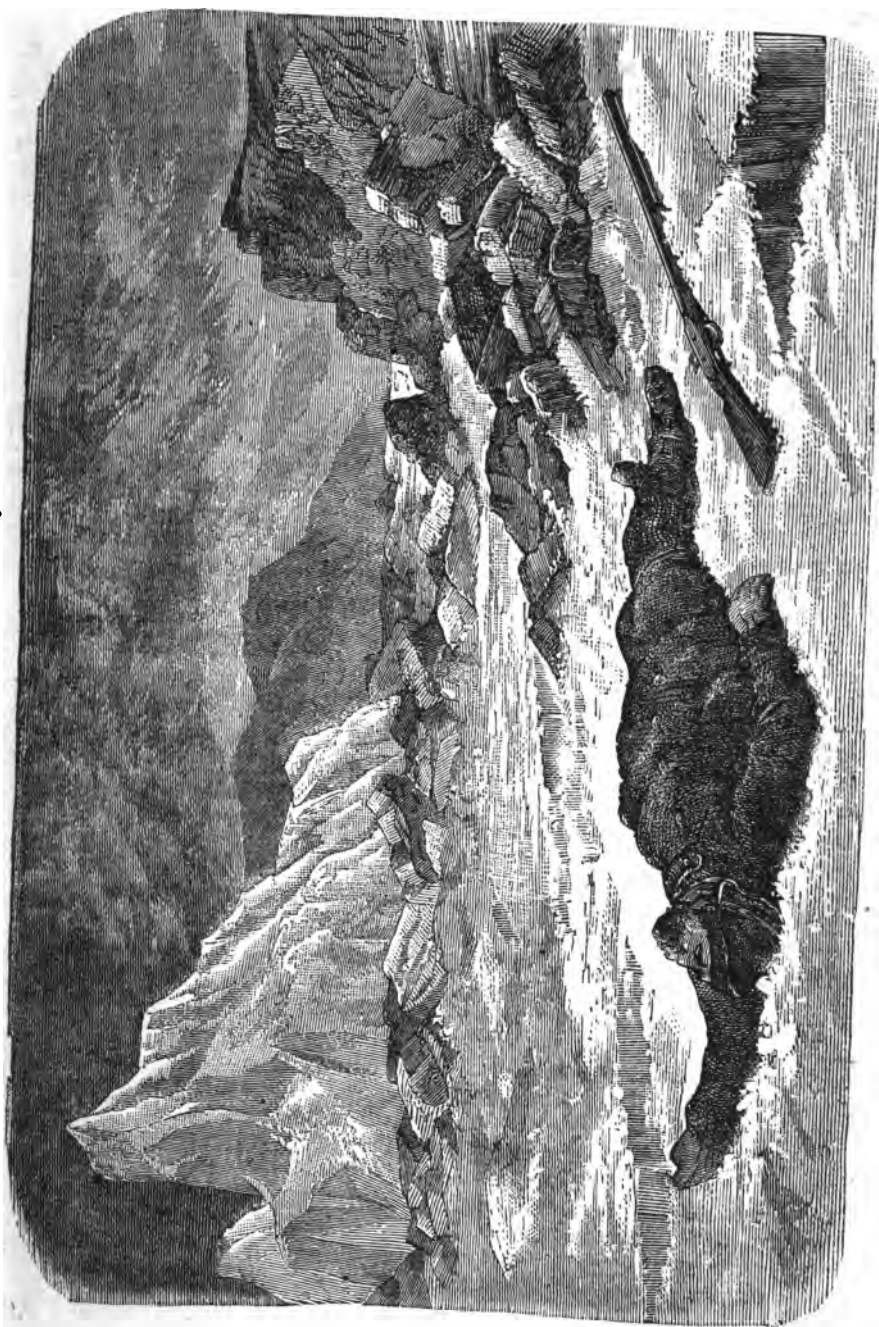
Our retreat commenced on the 17th—the anniversary of Bunker Hill. We were detained there four days in making preparations, and on the doctor's recommendation, awaiting the improvement of about a quarter of our party, who were debilitated by stomach disorders, supposed to be tin poisoning from tomato cans.

CHAPTER XII.

ENCAMPED ON THE ICE—PROVISIONS ON SLEDS—DESCRIPTION OF THREE
BOATS—THE START TO THE SOUTH—ORDER OF MARCH OVER THE
ICE—A MILE A DAY—REPAIR DAMAGES.

IRKUTSK, *March 4, 1882.*

The Jeannette sank about 4 o'clock of the morning of the 13th of June, 1881. Daylight found us encamped on the ice about four hundred yards from where the ship went down. We had slept late after the exhausting work of the previous night. The day was spent by us in arranging our effects and in gaining rest, which was much needed. Many of us, indeed quite a quarter of the number, were incapacitated for active work, by reason of severe cramps caused by tin poisoning from tomato cans. Among the sick were Chipp, Kuehne, the Indian Alexie, Lauterbach, and the cabin steward. The doctor recommended delay until the sick party should have recovered. But the time was not wasted, and the rest of the crew began the work of dividing the clothing and stowing the sleds and boats. We had as provisions about 3,500 pounds of pemmican in tinned canisters of 45 pounds weight each, about 1,500 pounds of hard bread, and more tea than we needed. We had also some canned turkey and canned chicken, but these we disposed of in the first camp. We had a large quantity of Liebig's extract—a most important element in our diet.



We had a large quantity of alcohol, which was intended to serve as fuel for cooking during our retreat. We had plenty of ammunition and a good equipment of rifles. The provisions were stowed on five sleds, each having a tier of alcohol cans in the middle, and on each side a tier of pemmican canisters. Another sled was loaded with bread and a limited quantity of sugar and coffee. The weights of the sleds, when loaded, were as follows :

No. 1—Ship made sled, 1,500 pounds.

No. 2—McClintock sled, 1,300 pounds.

No. 3—McClintock sled, 1,200 pounds.

No. 4—McClintock sled, 1,300 pounds.

No. 5—McClintock sled, 1,300 pounds.

Total, 6,600 pounds.

We had three boats, mounted upon ship made sleds, each of which consisted of two heavy oak runners, about twelve inches high, and shod with whalebone, of about twelve feet in length, and having eight to ten crosspieces made from whiskey barrel staves.

The weight of the first cutter, with sled and outfit, was 3,000 pounds.

Weight of second cutter, with sled and outfit, 2,300 pounds.

Weight of whaleboat, with sled, 2,500 pounds.

Making a total of 7,800 pounds, or a grand total, of sleds and boats, of 15,400 pounds.

To draw these we had a working force, when the retreat commenced, of twenty-two men, and the dogs were employed with two light St. Michael's sleds to drag a large amount of stores that we had in excess of those permanently stowed upon the larger sleds. Each man had a knapsack stowed away in the boats; each knapsack contained one change of underclothing, one package of matches, one plug of tobacco, one spare pair of snow goggles, and one spare pair of moccasins.

On the 16th of June, three days after the Jeannette had sunk, the captain called all hands, and read an order to the effect that we would start at 6 p. m. on the following day on our march south; that we would work during the night and sleep during the day to avoid the intense light, which might cause snow blindness; the routine to be as follows: At 5.30 p. m., call all hands, have breakfast, and break camp at 6.30; at 12, midnight, stop one half hour for dinner; at 6 a. m. stop for supper and sleep. Ration table during the march to be as follows:

Breakfast (per man)—Four ounces pemmican, two biscuits, two ounces coffee, two thirds ounce sugar.

Dinner—Eight ounces pemmican, one ounce Liebig, one half ounce tea, two thirds ounce sugar.

Supper—Four ounces pemmican, one half ounce tea, two thirds ounce sugar, two biscuits, one ounce of lime juice.

This amounted to less than two pounds per man per diem. The party was divided into five tents.

No. 1—Captain De Long, Mr. Collins and five others.

No. 2—Lieutenant Chipp, Dunbar and five others.

No. 3—Lieutenant Danenhower, Newcomb and five others.

No. 4—Engineer Melville and five others.

No. 5—Dr. Ambler, Boatswain Cole and five others.

The captain had also an office tent, in which half of his men were berthed. The tents were 9 feet long by 6 in width, and required very close stowage for seven men. Each tent had a fire pot, a heavy galvanized iron kettle, in which a copper kettle was arranged, having an alcohol lamp beneath it with a circular asbestos wick ten inches in diameter. It also had a stewpan on top. A cook was detailed to each tent, with an assistant to provide snow and to draw provisions. Each tent had a mackintosh blanket nine by six, upon which the men could lay at night. The sleeping bags were made of deerskin, covered with hairless sealskin or cotton drilling. In our tent there were three such single bags and two double ones; but generally single bags were in the other tents. Ours had been designed by Mr. Dunbar in November, 1879, and were the only ones that did not require alteration after we got on the ice. Each boat was provided with an outfit of oars, a boat box with suitable articles for repairing damages, and ammunition for the arms that had been detailed to each boat.

The order said that the course would be south 17 degrees east (magnetic), which was south (true). I may here state that the boat compasses were intentionally left behind, because the captain said he preferred the pocket prismatic compasses. We had six splendid Richie boat compasses, always kept in the Jeannette ready for instant use, but they were, as I said, left behind, much to our detriment at a later period. Each boat had been provided with a luff tackle, anchor, and grapnel. Of course the anchor and grapnel had to be left behind, but the whaleboat retained the luff tackle, which proved extremely useful at a later date. The order of march was as follows: All hands, except a special detail of four men, were to advance the first cutter to the first black flag established by Ice Pilot Dunbar, who was to go ahead to select the best road; then the second cutter and the whaleboat and provision sleds were to be brought up to the first station as rapidly as possible. While this was going on, the special detail of four men, with St. Michael sleds, were to advance the extra provisions, and the sick, with the hospital sled, were also to move to the front. We were ordered to sleep during the afternoon of June 17, and on the anniversary of the battle of Bunker Hill we commenced our long retreat. Chipp was on the sick list, and I, with my eyes constantly bandaged and covered, could only do light duty, so the task of leading the working party fell to Melville, the captain directing. Each officer and man was provided with a harness, which consisted of a broad canvas strap, fashioned to go across the chest and over one shoulder, and which had to be attached to the sled by a halyard. At last the order was given to break camp. The order

was obeyed with enthusiasm, and the drag rope of the first cutter was immediately manned, Melville, Dr. Ambler, myself and two other men stationing ourselves on each side of the boat with harness fast to the thwarts, and then our work commenced in terrible earnest. The snow was knee deep, the road very rough and the ice full of fissures. Through the former our feet sank easily, soon wearying the best of us; over the fissures, if not too wide, we had to jump the boats, and we had to drag the sled over lumps of ice that would have taken a whole corps of engineers to level. But we advanced steadily, if slowly. We reached one of the black flags that had been planted by Ice Pilot Dunbar, but seeing that he had planted another one ahead of us, we pushed on with the first cutter to reach that, too. This goal reached, we found that we were a mile and half from the starting place, and that it had taken us three hours to make the distance.

But we, in our enthusiasm, had gone too far. It appears that the captain had only intended that we should make a single short station on the first day, but the order had probably been misunderstood by Mr. Dunbar, whose only wish was that we should make as good progress as possible. So we had to return; but on our way back we found that the ice had shifted and that our original road had been entirely broken up, and so we had to leave our sled midway between the two flags and then go to the assistance of the rest. We soon found that we had been fortunate with the first cutter. During our absence the captain, with a special detail and dogs, had attempted to advance the second cutter and whaleboat. He had launched the whaleboat across a fissure and had broken the sled in hauling her out. No. 1 sled, named the "Silvie," had also been broken, as well as two others. The ice was all in motion, and we had a very bad outlook, with our boats and sleds at various points of the road. Chipp had been ordered to advance with the hospital sled, with Kuehne and Alexie and three men to assist him. The sled was heavily laden, and the work was too severe for the first lieutenant in his weak state, and the result was that he fainted from sheer exhaustion, requiring the services of the doctor to restore him. On our first outward march, machinist Walter Lee had fallen out of the ranks and laid upon the ice in agony with cramps in the calves of his legs—a result, doubtless, of his having worked for so many months on the iron plates of the fire room, oftentimes with wet feet. He was a large, heavy bodied man, and the unusual task fell heavily upon him at first. At 6 o'clock in the morning (we had been in the region of the midnight sun since the early part of May) we had advanced the second cutter about three-quarters of a mile from the old camp; the whaleboat was about a hundred yards back of her. Several disabled sleds stood at intervals along the road, while the balance of our stock still remained in the spot where they had been placed before the Jeannette went down. It was a cold, foggy morning, and we were very much chagrined at our ineffective efforts. We had a cup of

tea, then brought up everything in the rear of the position of the second cutter, and then camped down, leaving the first cutter about three-quarters of a mile in advance. Everybody voted this the hardest day's work he had ever done in his life.

For two days we stayed to repair damages, and we all concluded that the "now or never" policy of progress was a very ineffectual one. It would have been better for us to have spent a few minutes in removing the ice obstacles out of our way rather than attempting to drag the sleds over them by brute force. I did not know much about sleds and just how much spread to give the runners, but fortunately seaman Leach was from the State of Maine, and I depended on his judgment, and I may add, that our boat sled never broke down once after he and Bartlett—an old mountaineer and California traveller—had secured it. After two days we again made a start for the south. We made slow progress, about a mile or a mile and a half a day, over the rough and moving floe. It was terrible work for the men. They had to go over the road no less than thirteen times—seven times with loads and six times empty handed—thus walking twenty-six miles in making an advance of only two! The empty handed business was the worst. On the 19th of June the captain called me into his tent and told me to go with the hospital sled, because, he alleged, I could not see. I remonstrated, but without avail. I went back to my tent, naturally deeply mortified to know that thirty-three men were working for their lives and I was not allowed to help even at the cooking, although physically I was one of the strongest men of the party. That morning I started with the hospital sled, which was dragged by seven dogs, driven by Erickson, the doctor and I assisting over the hummocks. We advanced over rough moving ice with great difficulty about half a mile, and then set up the tent for the three invalids—Chipp, Lauterbach and Alexie—to await the coming up of the rest of the party. I, myself, would never go inside the hospital tent. Thus the survivors trudged along, the well heavily handicapped by the six or seven who furnished no motive power at all. Twenty-one men did all the work for the thirty-three. At the end of the first week the captain found by observation that the drift had more than neutralized the way covered by our advance; that, in fact, we had lost twenty-seven miles by the drift to the northwest in excess of our march to the south! This, of course, was kept a profound secret.

CHAPTER XIII.

FERRYING OVER GAPS—PLANTING THE FLAGS—CAN NEITHER DRAW SLEDS
NOR FLOAT BOATS—LAND ON BENNETT'S ISLAND—ICE JAMS.

By and by Lauterbach and Alexie got well enough to work; and finally Mr. Chipp, after several ineffectual requests to be put on duty, was allowed to relieve Melville and take charge of the working party. Melville was put in charge of the road gang, which consisted of Lee and seaman Johnson, with the dingy and the team of dogs. Their principal duty was to keep in position the blocks of ice that were used as temporary bridges, to enable the sleds to pass safely over the fissures. We often came to wide water holes, which caused us much delay in ferrying over. The method of doing this was as follows: First, a large ice piece was found; on this the boats and sleds were placed, and then all the floating mass was drawn over by the men on the other side, who had transported themselves across by the little dingy, or even on smaller ice floes. Some of these water spaces were as much as a hundred yards wide. These openings were not connected, and, of course, could not be used in the direction we wished to go. On many occasions the boats had to be launched and paddled across, and then hauled up again on the opposite side. Chipp took charge of this part of the work admirably, and the men were always glad to have him at their head. It was wonderful how he kept up. As soon as the list was clear of sick, the hospital tent was dispensed with, and I for many days walked after the whaleboat, but with Melville always watching me in jumping cracks and pulling me out when I fell in. I found it very difficult to judge of distances with one eye bandaged and the other covered with a dark goggle. Collins generally walked with me; Newcomb and seaman Staar followed other sledges; all of us suspended from work. Besides these, the captain, Chipp, Melville and the doctor added little or nothing to the motive power. Eight persons out of thirty-three, or twenty-five per cent. of the whole, were thus, so to speak, not working their passage across the ice.

In the latter part of June the snow all melted and travelling was better, but the men had to wade through pools of thaw water and their feet were constantly wet. Seaman Koch's feet were covered with blood blisters, but he never gave in. Nindermann and Bartlett were always the leading men in dragging the boats, each being stationed at the bow to slew them and to lift them over heavy obstructions. As the roads became better, we were able to advance two sleds at a time, but we would often have to jump them from piece to piece in crossing leads. Jack Cole and Harry Warren were the leading men of one party and Bartlett and Nindermann of the other. The number of times passed over the ground was now reduced to seven, and the advance was thus very much facilitated. Mr. Dunbar

was to start out, with two or three flags on his shoulder, and pick out the best road, planting his flags here and there in prominent places. The old gentleman was very careful and efficient, though the captain would often take an entirely different road, on several occasions insisting on ferrying the goods across after the ice had come together within fifty yards of us.

About the 12th of July we saw a "whale back" that looked very much like a snow covered island. I have forgotten to tell you that there were some slight changes in the course previous to this. I think it was changed to south (magnetic), which would be about south 17 (true), for there was about 17 degrees of easterly variation. The captain then shaped the course toward the point where land was thought to have been seen. At this time we began to see a heavy water sky to the south and southeast, and the ice to the southwest was more broken and in greater motion, making travelling very difficult. About July 20 we worked about twelve hours in advancing 1,000 yards over small pieces of ice constantly shifting. We could not float the boats. The land already mentioned appeared greatly distorted by atmospheric effects, and, indeed, until within a few days of reaching it, a great many would not believe that it existed at all.

Our progress toward the land was very slow, but finally we could see the glaciers and water courses upon it quite distinctly. We were shaping a course toward the northeast end of the island, the drift of the ice being along the east face. At times we were forced to remain idle in our camping place, it being quite impossible either to move over the rough, broken ice, always in rapid motion, or to launch the boats. On the 24th of July we reached a point not more than two miles distant from the land, but the men were so exhausted that we had to camp. Next morning we found that we had drifted at least three miles to the southward and along the east side of the island. July 27 was very foggy, and we were working our way through living masses of ice, when the mist lifted a little and an immense sugar loaf towered above us.

We had been swept in by the current, and now seemed to be our chance of reaching the icefoot of the island, which was very narrow, rugged and broken, being aground in nineteen fathoms of water. We finally got everything on one big floe piece, and as we carromed on the icefoot, we made a rally and jumped everything upon the ice-clad beach. But before the last boats and sleds were hauled up the floe piece drifted away, leaving them perched on the edge of the ice in a very dangerous position, and they had to be left there for some hours. Then succeeded the difficult work of getting the boats and sleds through the very rough and broken ice fringe along shore. About 6 p. m. we had succeeded in reaching some smooth pieces near the south cape, and there we camped down, each tent being on a separate piece of floe. There was a solid breakwater outside of us; consequently we were not in any great danger, though the blocks we were on were sometimes in motion as the tide rose and fell. At this

point the sides of the island were very bold and steep, composed of trap rock and a lava like soil, very dry, so much so that frequent land slides were occurring all the time we were there. Mr. Collins and I took a walk over the rough ice and along the south point of the island, in order to get a view of the south side. It appeared very rugged, and trended off to the west-northwest. From a high hummock we saw land to the west-northwest. About 7 p. m. the captain mustered everybody on the island. It was so steep that we could hardly get a footing. He then unfurled the beautiful silk flag that had been made for him by Mrs. De Long, and took possession of the island in the name of the President of the United States, and called it "Bennett Island." This was succeeded by hearty cheers, three times three, with a good American "tiger." There were millions of birds nesting in the cliffs, and their noise was almost deafening. I think one seal was seen, but no walruses, during our stay of nearly a week on the island. The south cape was called Cape Emma, after the captain's wife, and was in latitude 70 deg. 38 min. north; longitude 148 deg. 20 min. east.

The whaleboat was so long that in crossing hummocks the stern post used often to receive heavy knocks and her garboards had been stove; indeed, she had been shaken up so badly that she was as limber as a basket, and required repairs, as did the other boats. The captain and doctor thought, too, that the party needed rest and change of diet, and the men were sent out to get birds and driftwood, so that we could economize on our alcohol. In a few hours they knocked down several hundred birds with sticks and stones. These were brought into camp and divided out. Their effect, after being eaten, was like that of young veal, and pretty nearly every one of the party was made sick, the doctor included. I used to eat half a peck of scurvy grass every day, and that kept me well. But we had finally to return to pemmican, and were very glad to do so after such a surfeit of birds. Mr. Dunbar and the two Indians were sent up the east side of the island to explore. They were gone two days and reached the northeast point. They found the land on the east side was more promising than on the south. They found several grassy valleys, some old deer horns, some driftwood, and saw large numbers of birds. Lieutenant Chipp, with Mr. Collins and a boat's crew, explored the south and west sides, and promising reports came from them. A fair quality of lignite was found in several places. Mr. Melville experimented with it, and determined that it would be serviceable fuel for steaming purposes. The tidal action at the island was very great and quite remarkable for this part of the world. The ice outside of us was in constant motion, and seeming to be lifted regularly with the rise of the water. We had a tide gauge set up, and it was observed every hour by Bartlett, Nindermann and Lee. As I remember, the greatest rise and fall was about three feet; they were regular six hour tides. We were there near the time of full moon, and the "vulgar establishment" was probably established.

At Cape Emma the captain got a set of equal altitudes of the sun for chronometer error, but the weather was generally misty and unfavorable for such work. A box of geological specimens was obtained, and is now in my charge, it having been recovered from the captain's *cache*, near the mouth of the Lena. The doctor was very enthusiastic about certain amethysts, opals and petrifications that he had obtained; these are probably lost. While on the island I observed that the sea to the south and west was freer from ice than that to the eastward, and that water clouds to the northwest were very common, and it occurred to me that in good seasons a vessel could reach the island, which might form a good base for explorations further to the north.

We left Bennett Island about the 4th of August. We were then fifty-three days out from the place where the Jeannette had sunk. We were fortunate enough in being able to launch our boats and to make better progress in the cracks between the floes; but we still had to keep our sleds for a short time longer. I have not told you much about the dogs, some of which rendered us very important services; but about half the number were now disabled by famine and weakness. We had forty originally, but about sixteen had died or had been killed by the others during the two winters in the ice. After the stock of dog food gave out and the scarcity of game, there were long periods of starvation for the poor brutes. Each man had a favorite animal, and would share his own rations with him, but this was not sufficient. At Bennett Island we had, I think, still twenty-three left, and the day before leaving eleven of the poorest of these were shot. We took the remaining twelve in the boats, but in passing close to big floe pieces these gave us a great deal of trouble by jumping out and running away. Finally, Kasmatka and Suvoyer were the only two that had sense enough to remain by us. For the next eighteen days we were working between floe pieces, and sometimes making as much as ten miles a day on our course to the southwest. Several times a day we would have to haul the boats out and make portages across the large floe pieces that barred our progress. This was very severe work. We had at this time retained only the boat sleds, having left the provision sleds and all superfluous articles on a floe piece about August 6. We now worked during the day and slept during the night. At Bennett Island the doctor, who belonged to my boat, had been transferred to the captain's, and Mr. Melville was placed in charge of mine—that is, the whaleboat. I was ordered to remain in the boat as a passenger and to assist in emergencies. I always carried my own baggage and assisted whenever possible. Dunbar was detailed with Chipp. We made very good progress until about August 20. On that day the leads were very open and we thought we were all right. The wind was fresh and favorable. The first cutter and whaleboat, which followed closely, passed safely through great quantities of ice, but the second cutter was in the rear and became jammed in the floe pieces coming to-

gether very suddenly, and Chipp had to haul out and transport his boat about a mile in order to get her afloat again. In many cases a passage was obtained by prying the floe pieces apart; but several times these sprang back, thus cutting off the advance of the second cutter. It was very hard and slow work, but much better than dragging the sleds over the ice. The delay caused by getting Chipp's boat afloat was very fatal to us, for the wind shifted suddenly, and we were forced to camp after waiting for him several hours. The ice jammed up during the night so that we had to remain there ten days without being able to move.

CHAPTER XIV.

TEN DAY CAMP—DESCRIPTION OF THE BOATS—AMONG THE NEW SIBERIA ISLANDS—THE BOATS IN GREAT DANGER—THE SAD PROCESSION.

Then land came in sight, and we seemed to be drifting along the north face of an island, which the captain at first thought was New Siberia, but it was afterward found that we were drifting along the north coast of Thaddeoffsky. We drifted along this coast until the 28th of August, when, at last, we were again able to make a move. We called the place the Ten Day Camp; but we had used the delay in making repairs, and the food had been distributed per capita among the boats. On the afternoon of the 29th we launched the boats again and worked in the pack for about two hours, when further progress was again barred by the ice. Finally, new connecting leads were found, and we proceeded to the southward and eastward for about five hours. Then we hauled up for the night on a small piece of floe ice, which was drifting very rapidly to the southward and down the passage between New Siberia and Thaddeoffsky. The next morning found us in navigable water and with land about seven miles distant to the westward. Then we rounded the south point of Thaddeoffsky. We found the island to be composed of mud hills that were wearing away rapidly and forming shoals off the land. Beyond the low hills there was a wet, mossy tundra, upon which we camped for the night. All hands were then sent out hunting. Reindeer tracks and traces were numerous, but none were seen. Bartlett reported that he found footprints in the sand made by a civilized boot. The steward found a hut about two miles west of the camp and a small piece of black bread, as well as a small tusk and a knee piece for a boat fashioned from a deer horn. The next morning we proceeded west along the shore, the water being very shoal. We saw remains of several huts and quantities of driftwood. We also saw lots of ducks and wild fowl, and Newcomb succeeded in getting about six brace of ducks, which were very welcome. That night we tried

to land, but after several ineffectual efforts gave up the attempt, as the water was too shoal for our boats.

At this period of the retreat I think it would be well to give the details of our boats, for they and their qualities were to be of great importance to our safety.

FIRST CUTTER.—THE CAPTAIN'S BOAT.—Captain De Long, Dr. Ambler, Mr. Collins, Nindermann, Erickson, Gartz, Noros, Dressler, Ivorsen, Koch, Boyd, Lee, Ah Sam, Alexie.

Extreme length, 20 feet 4 inches; breadth, 6 feet; depth, 2 feet 2 inches, from top of gunwale to the top of keel; clinker built, copper fastened, inside lining; drew 28 inches loaded and had the greatest carrying capacity of the three; fitted with mast and one shifting lug sail; pulls six oars and was an excellent sea boat. She had a heavy oak keel piece to strengthen her in hauling over the ice, and it was retained after reaching the water. She was fitted with weather claws at Semmoffsky Island, September 11, by Nindermann.

SECOND CUTTER.—Lieutenant Chipp, Dunbar, Sweetman, Staar, Warren, Kuehne, Johnson, Sharvel.

Extreme length, 16 feet 3 inches; breadth, 5 feet 1 inch; depth, 2 feet 6 inches, from top of gunwale to top of keel; clinker built, copper fastened, a very bad sea boat; she was carefully fitted with weather claws; had one dipping lug sail and four oars. She had not sufficient carrying capacity for Chipp's allowance of provisions, so the captain had two extra tins of pemmican in his boat when we separated. This is an important fact, for Lieutenant Chipp must have run out of food very quickly.

WHALEBOAT.—Engineer Melville, Lieutenant Danenhower, Coles, Newcomb, Leach, Mansen, Wilson, Bartlett, Lauterbach, Steward, Anequin.

Extreme length, 25 feet 4 inches; breadth, 5 feet 6 inches; depth, 2 feet 2 inches, from top of gunwale to top of keel; clinker built, copper fastened, drawing about twenty-four inches when loaded, this being caused by the heavy oak keel piece, similar to those of the first and second cutters. She had one mast and one dipping lug sail, and was fitted with weather claws about September 11. The master boat builder at Mare Island told me that she was one of the best fastened boats that he had ever seen, and our experience proved it, for the racket she stood on the journey over the ice was almost incredible. The plans of the boats I got from carpenter Sweetman at Kaltanoi Island, September 4, 1881.

But to return. The captain decided to work along the shoal that lies between Thaddeoffsky and Kaltanoi islands. There was a moderate wind from the eastward, and the captain tried to keep close in in about four feet of water. The result was, that the first cutter was constantly grounding and then laboriously getting off again. We continued on our course to the southward; the captain's boat getting in

breakers at one time and calling for our boat to pull him out. There was not much ice at the time, and it was decreasing. One day, about noon, we ran through a line of drift ice, and the whaleboat struck on a tongue that was under water. She began to fill rapidly, and we had to haul her out, but not before she was two thirds full could we reach a suitable ice piece. The plug had been knocked out, but she had sustained no other damage. That afternoon we passed through a large water space several square miles in area, with a heavy sea running. We were steering dead before the wind, having to follow in the wake of the captain, and it was very difficult to keep from jibing.

About 3 p. m. the coxswain let her jibe, and she was brought by the lee by a heavy sea on the starboard quarter. The sheet was not slacked in time, and the boat was hove almost on her port beam ends. A heavy green sea swept over the whole port side and filled her to the thwarts; she staggered and commenced to settle, but every man, with a bailer in hand, quickly relieved her, and she floated again. I was never frightened before in a boat, but it was a most dangerous and terrible situation. There was no chance for the captain or Chipp to have assisted us, and had another sea boarded us, not a man of our party would have been saved.

CHAPTER XV.

CHIPP'S BOAT MISSING—GREAT ANXIETY—THE BOAT SAFE—HUNTING PARTIES—SHOOT A DOE—PREPARING FOR A GALE—FOLLOWING DE LONG'S CUTTER DURING A GALE—MELVILLE'S BOAT GETS HER SIDE KNOCKED IN—SEPARATED IN A GALE—DANGEROUS MANOEUVRES.

The weather was very cold. Two hours afterward we met the ice, among which we made our way. Chipp's boat was still astern and in the water hole, and we were very anxious about his safety. The captain hauled up about 7 p. m. and camped with us. The next day the gale was still blowing, and Chipp's boat still missing, so about 6 p. m. the captain hoisted a black flag. On the following day Bartlett reported that the ice was closing around us, and that if we did not move we would be shut in. Two hours afterward all outlets were closed. Land was also in sight at this time, being Kaltenoi Island. Erickson was the first to see Chipp's boat, and presently we saw two men making their way over the floe and jumping across the obstructions. It was Chipp, with Kuehne. His boat had been nearly swamped, and in a sinking condition he had reached a piece of ice and managed to haul up. Staar was the only man with his boat at that time who could walk, the others requiring ten or fifteen minutes to get up circulation in their benumbed limbs. The captain

had previously given written orders, that in case of separation, each boat should make the best of its way to Lena River, but he had recommended touching at Kaltanoi Island. Chipp had, fortunately, decided to follow these instructions, because he had not his allowance of food. We ourselves had been on half rations for some time. He had remained on the ice about twenty-four hours and then got a chance to get under way. He told us, that by making a portage of about two miles, we could launch our boats and fetch the land. He sent his men to assist us, and after six or eight hours of terrible work we succeeded in getting our boat to the second cutter. That night we reached the southeast corner of Kaltanoi Island, and camped in a low cape extending well out from the mountain and forming a beautiful bay.

This was September 6, I think. We stayed there about thirty-six hours. Large parties were sent out hunting, as numerous deer tracks had been seen. Next morning we got under way again, and worked along shore until about noon, when we had to make a long and laborious portage, during which Mr. Dunbar fell down exhausted and with palpitation of the heart. We continued until midnight, and then camped on a bleak, desolate spot. Next morning, September 7, we shaped a course for the island of Stolbowei, from the south point of Kaltanoi, fifty-one miles distant to the southwest. We had fresh breezes the first day, and during the night got into a very bad place, and came very near being smashed up by drift ice. We passed in sight of Stolbowei, but it was not considered worth while to land on the barren island, which was, besides, too distant.

On the night of September 9 we hauled up on a piece of ice off the north end of Semmofsky Island, and there slept. On September 10 we rounded the north end of this island and came down the west shore, stopping to cook dinner and to examine the island. Having seen the tracks of deer going toward the south end of the island, the captain suggested that a party of hunters deploy across it and advance to the south, in hopes of getting a deer. About ten of us went. I went along the beach with Kuehne and Johnson, Bartlett, Noros, Collins and the Indians skirting the hills. We raised a doe and fawn running to the northward as fast as possible, they having previously seen the boats. Several shots were fired, and the doe fell under Noros' last shot. We hurled the body down a steep bluff to Chipp, who had it butchered, and the captain ordered all served out, having previously given orders for all hands to camp.

That evening the captain told Melville that he and many of his party were badly used up, and must have rest and a full meal before proceeding. All these days—for the past twenty—we had been on very short allowance, and had never had a full meal. Melville said that he and his party were in excellent condition, and wanted to move on, and did not like losing time. The entire deer was served out, and we had orders to remain till Monday morning, or about thirty-six hours. We have noticed that after two or three days of northeast

winds, it generally finished up with a heavy gale from that quarter, and it was thought we would be likely to get it on Monday or Tuesday. That evening Chipp came over and asked me to go out with him to get some ptarmigan, if possible. We came upon a large covey, but could not get a shot. This was my last talk with Chipp. He was in better health than usual, and was cheerful, but not altogether satisfied with the outlook. On Monday morning, September 12, we left Semmoffsky Island, and stood to the southward, along the west side of the island, lying to the south. About 11.30 a. m. we ran through a lot of drift ice, following the first cutter.

It was pretty close work, and our boat had to luff through between two big cakes of ice. The sheet was hauled aft in luffing, and the boat sided over against the lee piece, thereby knocking a hole in the starboard side. She filled rapidly, and we barely succeeded in making fast her bows up to an adjacent cake of ice; there we put on a lead patch and remedied the damage. This was the last piece of ice that we saw. While repairs were going on, I had a chat with Collins, who was as amiable as usual, and had some pleasant story to tell me. The doctor was also very affable, and asked particularly after my health and comfort.

We then started on a southwest course. The captain kept his boat almost right before the wind; it was very difficult to keep from jibing, and as the whaleboat was the faster sailer, it was hard to keep in position. Our orders were to keep astern of the captain, within easy hail, and for Chipp to bring up the rear, he being the second in command. The wind and sea increased very rapidly, and about 5 p. m. we were out of position about nine hundred yards off the weather quarter of the first cutter. Melville asked me if we could get in position safely, and I told him that by jibing twice and lowering the sail we could do so. He then told me to take charge; so I jibed very carefully, ran down to the captain's wake and then jibed her again, each time having lowered the sail, and having gotten out two oars to keep up the headway before the sea while shifting the sail. I then had seaman Leach put at the helm, as he was the best helmsman in the boat. My eyes would not permit my taking the helm, or I would have done so. We then ranged along the weather side of the first cutter, had our sail close reefed, and to keep from running away from her had to take it in, thereby allowing the seas to board us. About dusk the captain stood up in his boat and waved his hands as if to separate. This is what the men say; I did not see it. At the same time Chipp was said to be lowering his sail. Melville asked my advice, and I said we should steer with the wind and sea four points to the north quarter; that we could make good weather of it until dark, when we should heave to on account of the liability to meet young ice in the darkness. In the meantime, I advised that we should prepare a good drag. He told me to go ahead and do it. So I ordered Cole and Mansen to make three hickory tent poles, each about eight feet in length, lash them in a triangle, and lace a strong piece

of cotton canvas across it, then take the boat's painter and make a span similar to the bellyband of a kite, and to the middle of this span make fast the luff tackle fall. On the lower end of each tent pole there was a brass nib which, with the weight of the wet canvas and the bight of the rope, would, I said, probably make the drag heavy enough; if not, we would send down the spare firepot and boat bucket to help it.

CHAPTER XVI.

THE GALE AT ITS HEIGHT—INGENIOUS SEAMANSHIP SAVES THE CRAFT—
HARD WORK—PULLING AND SAILING—AMONG BREAKERS—NINETY-
SIX HOURS IN THE BOAT AND WET ALL THE TIME—AT THE LENA'S
MOUTHS.

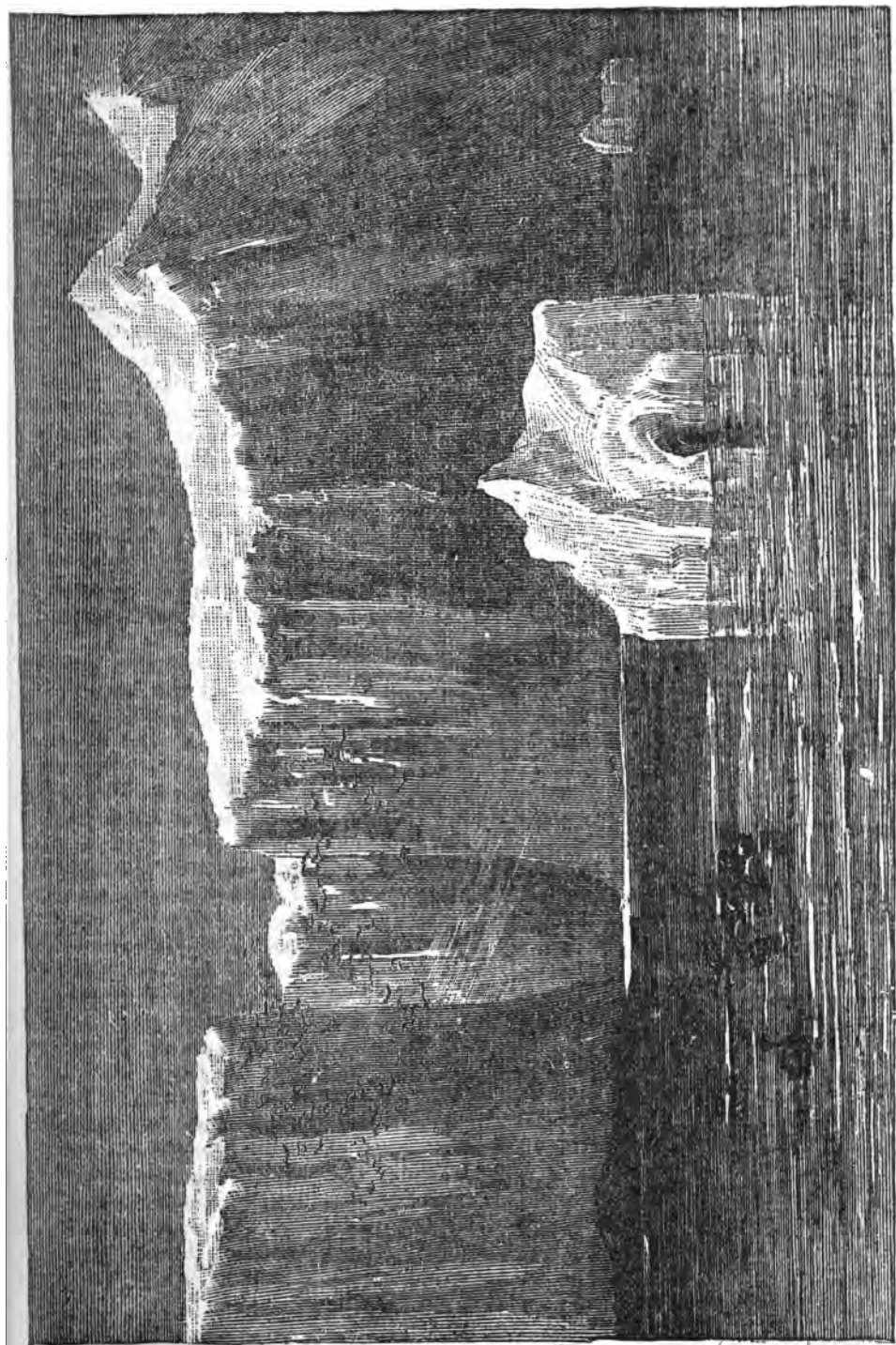
The gale was now at its full force, and the seas were running high and spiteful. Leach was steering admirably, but we had to keep four bailers going all the time to prevent the boat from filling and sinking. The drag, having been completed, was placed forward of the mast in readiness for use. I had the drag rope coiled down clear for running. The men were very weary. There were only two seamen in the boat who could pull in a seaway, the others being inexperienced, except the helmsman. I had been watching the seas for a long time, and had noticed that they ran in threes, and that there was a short lull after the third and heaviest one. I had the men detailed as follows: Wilson and Mansen at the oars, keeping them peaked high above the sea, Cole at the halyards to lower sail, Anequin and the steward to gather the sail, Bartlett to launch the drag, and Leach at the helm. I gave preparatory orders very carefully—at the words, "Lower away!" to put the helm hard astarboard, lower sail, and give way with starboard oar, holding water with the port oar, if possible, in the seaway. I watched more than five minutes for my chance, for our lives depended on the success of that movement. At the proper moment I shouted, "Lower away!" and every man did his duty; the boat came round, gave a tremendous dive, and she was then safe, head to sea. We eased the oars and launched the drag. It floated about three points on the port bow, so I sent down the spare firepot and a bucket by putting loops, or what we call beackets, on the bales. Cole suggested sending down a painted bag with the mouth open. It filled with water, dragged, and was very effective. We then lay head to sea during the night. A number of the party turned in under the canvas. Melville was exhausted and had his legs badly swollen, so he turned in abreast the foremast.

Leach and Wilson steered with a paddle during the night, and I sat at their feet watching. The upper gudgeon of the rudder had been carried away, so we took the rudder on board. Our fresh

water had been ruined by the seas that had boarded us, but late on the night before leaving the island, Newcomb had brought in several ptarmigans, which had been dressed and put in our kettle, the other tents not caring to take their share. This proved excellent food for us the next day, as they were not too salt to be eaten. About 10 a. m., September 13, I noticed that a new sea was making and the old sea was more abeam. From this I judged that the wind had veered to the southeast and would grow lighter. About noon the water began to tumble in very badly on the port quarter, and the boat was down by the stern. We were thoroughly wet, and the sleeping gear was so water soaked and swollen that it jammed between the thwarts and could not be shifted in trimming. I rigged the mackintosh on the port quarter, the stroke oarsman holding one corner and I the other for seven hours. This kept a great deal of water out of the boat, and acted like a "tarpaulin in the rigging" to keep her head to sea. At 4.40 p. m., per log, I called Melville, and told him that it was time to get under way. The sea was very heavy, but was falling, and by standing west at first we could gradually haul up to south-southwest as the sea went down.

At daylight, I neglected to tell you there were no boats in sight, when the gale was still raging. We got under way without getting a sea aboard and stood to the westward, and by 8 p. m. were able to haul up to the south-southwest, on which course we stood during the night. The second night was more comfortable, but still we were all very wet; but we were perfectly safe. I lay down for an hour abreast the foremast, while Melville relieved me, but could not sleep, and soon returned to my old place. At 6 o'clock on the morning of the 14th, I gave orders to prepare breakfast, and a few minutes later we were surprised by the boat taking the ground in two feet of water. We backed off, and I recommended standing to the eastward. I had reckoned that when we rounded to, we were about fifty miles off Barkin, our destination; that we had drifted at least fifteen miles to the southwest during the gale, and that we had run about twenty-five miles during the night, so that we were on the shoals north of Barkin. I said that if we stood to the west we would have no show, but that if we went east until deep water was reached, and then stood due south to the highlands of the coast, we would find plenty of water and a good landing place. Melville was, of course, in command, but he relied on my judgment, as he did in all emergencies.

Bartlett thought he saw a low beach with logs upon it. I told him to take another good look, and then he said he thought he was mistaken. It was only a smooth patch of water among the shoals. We noticed that the water was only brackish, and that there was a thin skim of young ice near us. We stood to the eastward, occasionally feeling our way south, but always touched the ground quickly when moving in that direction. I noticed there was a very strong easterly set here. The winds were light and southerly; we stood all night about east-southeast, and early next morning got nine fathoms. I then rec-



commended steering due south; but Melville wanted to go southwest, because that was the captain's course, so I assented, and shaped a southwest course, which we continued to steer until the morning of September 17. The winds were very light, and we often had to pull the boat. I was at the coxswain's feet conning the boat. At daylight we got ten feet of water, and soon after saw a low beach. We made two attempts to land through the breakers, but could not get within a mile of the shore. The land trended north and south, and I said that we were evidently south of Barkin, and that if there was water enough we might fetch it that night from the southward, as we had a good breeze about east. With a view to finding the captain and Chipp, we stood up the coast, hoping to reach Barkin before dark. The condition of the party on this morning was very bad. Leach and Lauterbach were disabled with swollen legs, the skin having broken in many places, and most of the others were badly off. We had been in the boat ninety-six hours and wet all the time. I had taken the precaution twice during that time to pull off my moccasins, to wring out my stockings, and to rub my feet in order to restore circulation. I advised the others to do the same, but they unfortunately did not take the advice. I also beat the devil's tattoo almost all the time to keep up the circulation, so the next morning I was the best man in the party on my feet.

After going to the northward about thirty minutes, we saw two low points of swamp land, and it was evident that we were at the mouth of a swamp river. We had a talk, and I advised getting ashore as quickly as possible and drying our things out. So we entered this river with a leading wind, the current being very strong. We got as much as five fathoms in the middle of the river, but it shoaled very rapidly on either side of mid-channel. It was four or five miles wide, but we could not get within a mile of either beach. I advised standing up the river until noon, and then to decide fully what we should do. When that time arrived, I said, "We are probably in a swamp river, either twenty or forty miles south of Barkin." The wind was east, and if we turned back we would have to beat out, but would have the current in our favor. After getting clear of the point we could run up the coast with a fair wind; "but," I added, "if a gale comes on we will be in the breakers." Melville then decided to turn back and start for Barkin. At this juncture Bartlett spoke up, and said that he believed we were in the coast branch of the Lena. Melville referred to me, and I said that it might be so, but that we should have higher land on our port hand if that were the case. The trend of the river corresponded pretty well with the coast outlet, and if we could find an island about thirty miles up stream, it would, doubtless, prove that we were in that place. Bartlett said that he believed such a vast body of water could not be a swamp river; it was bigger than the Mississippi at its mouth. I still held to my belief that it was a swamp river, but said that it would be a good place to try to make a landing before night.

CHAPTER XVII.

LAND AT LAST—FIND AN EMPTY HUT—SUFFER “AS IF A MILLION OF NEEDLES WERE PIERCING THEIR LIMBS”—LOTS OF REINDEER—MEET THE NATIVES—ARE KINDLY TREATED—GOOSE AND TEA—THE MIRACULOUS MEDAL—AMONG CHRISTIAN NATIVES.

So we stood up stream, and were fortunate enough to make a landing at 7 p. m., in what we found afterward the Tongus call an *orasso*, or summer hunting hut. We had been 108 hours in the boat since leaving Semmoffski Island. The men immediately built a fire in the hut, and gathered round it before they had restored circulation by exercise. I knocked about outside, and carried up my sleeping bag before supper, so my blood was in good circulation before I went near the fire. We had a cup of tea and a morsel of pemmican, having been on quarter rations since we separated. We went to sleep with our feet toward the fire, and several of the men passed the night in agony, as if millions of needles were piercing their limbs. Bartlett described it as the worst night he ever passed. I slept like a child, and was very much refreshed next morning. We found fish bones, reindeer horns and human footprints, also a curiously fashioned wooden reindeer with a boy mounted on his back. We were very much delighted with our prospects of meeting natives. Next morning we got under way about 7, steered up the river about two hours, and then could proceed no further. Bartlett started out to reconnoitre, but when he was a hundred yards distant I saw that he was limping, so I ran after him and sent him back.

I went about half a mile, and saw several swamplike rivers coming from the northwest; then went back to the boat and told Melville that he had better prepare tea, while Mansen and I took a more extended scout. We went further, and Mansen used his eyes for me. I could see some high land about two miles off, and I asked Mansen to look well if he could get over to it, for I was sure deep water lay alongside of it. He thought he could trace a passage to it, all but in one small place, so we returned with that information. The land was about ten feet high, and covered with good deer moss.

We saw many deer tracks, especially where they had come down to water at the river; we also saw another hut close by, on a small flat. We then went back to Melville, and soon after started out with the boat. We had splendid luck; we struck a passage and reached the deep water. We passed an island, and I began to think that Bartlett was right.

We proceeded at least thirty miles that afternoon, and at dark we reached a point about sixty feet high, where we expected the river to turn due south. Here we pitched the tents and passed the night. About 4 o'clock next morning, Bartlett and I took a scout. We saw two large rivers to the northwest, and a broad river coming from the

south. We thought we were at the right turning point, but were not sure. At six I called Melville and the others, and ordered tea cooked. The wind was fresh from the west, and blowing right on the beach. We had breakfast, and then I took the well men and loaded the boat. We struck the tents at the last moment, and assisted Melville and Leach into the boat, close reefed the sail, and made every preparation for getting the boat off the lee shore. After some difficulty we succeeded in doing this, and ran close hauled on the starboard tack under close reefed sail, standing about south-southwest under the lee of a mud flat. I was at the helm and Bartlett on the bows with sounding pole. We saw seven reindeer among the hills, but did not stop to get at them.

About 11 we saw two huts on the west bank, and in a good situation for landing, so I recommended that we should get ashore and dry out everything. It was Sunday, September 18, and was the first real day of rest that we had taken for a long time. We found two very nice summer hunting dwellings, built with sloping sides and shaped like the frustum of a pyramid, the sloping sides forming the cover for the occupants, and the aperture at the top being the chimney. This was what the Russians call a *polotka*, and the Tungus *orasos*. The sun was bright and beautiful. We opened out everything to dry, and passed a delightful Sunday, being sure that rescue was not far off.

We also wrote a notice to the effect that the whaleboat had landed at this point, and stuck up a flag to mark the place of the record. There were lots of fish bones in the hut, some refuse fish and a piece of black bread, all of which our Indian ate with avidity. There were also frames for nets and for drying fish. At 8 a. m. on Monday, September 19, we got under weigh again and stood up the river. I was at the helm and Bartlett on the bows, and the crew, divided in two watches of four each, taking two hour tricks at the oars. Melville was in the stern sheets in command of the boat. We stood south for two hours with light wind and oars. All was going well, and we were in strong hopes of reaching a settlement marked on the chart before night; but we soon began to be headed off by mud flats and sand banks. About 1 a. m. we were more than a mile from the west bank, which we were following, because the village was marked as on that side.

We then saw a point of land, and I proposed to go ashore to set up the prismatic compass and get some bearings, as well as to prepare dinner. After two hours' work against a strong current, we succeeded in reaching the shore, and the cook had set about getting fire, when, to our surprise and delight, we saw three natives coming around the point in three dug out canoes, and pulling with double paddles. We immediately manned our boat and went out to meet them, but they appeared shy and stood to the southward. We lay on our oars and held up some pemmican, and finally a handsome youth of about eighteen approached cautiously and took a piece.

Then he called his two companions, and they also came to us. We then induced them to go ashore with us to the old landing, where we built a fire and commenced preparing tea. One of the natives gave us a goose and a fish, all they had at the time. Their boats were very neat and well fitted with nets. I noticed that one of the strangers had a gray coat with a velvet collar, and when I pointed to it inquiringly, he said, "Bulun." Then I pointed to his knife, or *bohaktah*, as he called it, and he also said, "Bulun." From this I imagined that Bulun was the name of the place where they had obtained them. We had a very joyous time drinking tea and eating goose, for we felt that we were safe. The natives showed us all their hunting gear, and we showed them the compass, the watch and our rifles, much to their delight.

After eating, they crossed themselves, shook hands and said, "*Pashee bah.*" They also showed us their crosses, which they kissed; and I was very glad to have in my possession a certain talisman, which had been sent to me by a Catholic friend in San Francisco, with the message that it had been blessed by the priest, and I would be sure to be safe if I wore it. I did not have much faith in this, however, but I showed it to the natives and they kissed it devoutly. It was the only article in the possession of the party, indeed, that indicated to the natives that we were Christians. You can imagine our feelings at meeting these people, for they were the first strangers whom we had seen for more than two years; and I never before felt so thankful to missionaries as I did on that day, at finding that we were among Christian natives.

CHAPTER XVIII.

BLESSED SLEEP TO THE WEARY—AN ENJOYABLE MEAL—THE NATIVES VERY KIND—"CUT-EARED WASSILI," THE TUNGUS PILOT—THE NATIVE VIATKIES GRACEFUL AND LIGHT AS A PAPER RACE BOAT—MEET HARD LOOKING WOMEN WITH TENDER HEARTS.

We indicated to them that we wanted to sleep, making signs, and resting the head upon the hand and snoring. They understood us, and took us around the point where we had hauled our boats upon the sand beach, and then climbed a hill, which was from sixty to seventy feet high. This was at the mouth of a small branch of the Lena, and we have since learned this to be on Cape Borchaya, said to be 140 versts, or about 85 miles, northwest of Cape Bykofsky. I know that these names will prove very confusing to you, as nearly all the charts mark this cape in different places of the delta. There we found four houses and several storehouses, all deserted but one, which was in very good condition. There was a graveyard near by,

with many crosses. We all lodged in the one house. The natives were very kind to us; they hauled their nets and brought us fish, parts of which they roasted before the fire, giving us the most delicate morsels. Some of the fish we boiled, and altogether we had a very enjoyable meal. Then I noticed that Caranie (one of the natives) had gone away, leaving only the youth whom we called Tomat and the invalid whom we called Theodore. From Caranie's absence I argued that there must be other natives near by, and that Caranie had gone to inform them of our presence. Next morning, while the men were loading the boat, I took the compass and got some bearings of the sun for local time, direction of the wind, and general lay of the land. Previous to this I had interviewed Tomat, who drew a diagram on the sand showing the course of the river, and that the distance to Bulun was seven sleeps, which he indicated by snoring deeply when he pointed to each stopping place. To Bulun he appeared perfectly willing to go with us as pilot.

On my return Melville asked me to hurry up, as he wanted to get off. I was surprised, and asked where the other native was. Melville replied that he had left, having refused to go with us. I then asked him to wait a few minutes, while I ran back to the house, in order to try and induce them to come. Returning, I found the youth Tomat on the housetop, looking very sad and bewildered. When I asked him to accompany us, he replied, mournfully, "Sok! Sok! Sok!" which meant "No! No!" and then tried to explain something, which I could not understand, saying "Kornado," which I only afterward learned meant "father." I felt sorry for the youth, and gave him a colored silk handkerchief and one or two little things, and then went back to Melville. We then started out on our own hook and tried to work south (that is toward Bulun) among the mud flats; but in this we were not successful. At 5 p. m. we had a consultation, and I urged that we must decide at once whether to remain out all night or go back. I recommended going back and forcing the natives to go with us. We had two Remingtons and a shotgun, and I knew that it would be easy to carry our point. Bartlett had been sounding from the bow, so I asked him if he knew the way back. He said yes, and we started to return. We did quite well until dark, but then the wind shifted and began to blow a gale. It was a very bad situation for a boat in such shallow water. We were fortunate enough, however, to get under the lee of a mud bank, where we secured the boat, with three tent poles driven into the mud and our line fast to them. Thus we rode all night. It was very cold, and some of the men got their feet and legs badly frostbitten. During the snow squalls of the evening before I had to give the helm to Leach, because my glass would constantly get covered with snow and I could not see. At daylight I got Bartlett and Wilson to stand up in the boat and take a good look at the land. Bartlett said he could not recognize it, but Wilson was sure it was the place where we had first met the natives. Bartlett said that if we could weather a cer-

tain mud flat we would have a fair way in; so we close reefed, I took the helm and went to windward of the mud flat. Then we ran in with a leading wind and landed. Newcomb shot some sea gulls, and we breakfasted on them, in order to save our few remaining pounds of pemmican. Wilson insisted that in less than half an hour he could go to the house where we had slept the night before. Most of us laughed at him, but I told him and Mansen to go and see, while I sent two men to reconnoitre in an opposite direction. Wilson and Mansen came back very soon. We were rejoiced to learn that they had seen the house. We immediately recalled our scouts and embarked, rounded the point, and were received at the old place by the natives in the most cordial manner. They were headed by another native, an old man, who took off his cap, and said, "Drasti! Drasti!" at the same time shaking hands. He immediately took possession of Melville, who was very lame, and helped him up to the house. We unloaded the boat and carried up the sleeping gear. When the natives saw a couple of gulls that we were expecting to feed on, they threw them down in disgust, and immediately brought deer meat to replace them. Veo Wassili, for that was the old man's name, proved to be our great friend; he willingly consented to pilot us to Bulun, and measured the boat's draught, thus showing that he was wide awake and knew what he was about. This old Tungus Wassili, or Wassili Koolgiyork, or "Cut-eared Wassili," in his style and bearing always reminded me of the late Commodore Foxhall A. Parker. He was always dignified and kindly, and had a certain refinement of manner that was very remarkable.

We saw at once that Wassili was the man whom Caranie had gone to bring to us, and that was why the youth would not go with us until his father had arrived. I got Wassili to draw a chart of the route we should take, with the way in which he proposed to pilot us, and the points at which we should sleep.

We took a good rest, and were all ready to start next morning with Wassili. Bartlett and myself asked to go ahead, in order to send succor from Bulun, and also to spread the news about the two other boats; but Melville preferred that we should all keep together, for he probably did not feel that we were out of the scrape ourselves yet. On Wednesday morning, September 21, Wassili, with two other natives, started with us, and pursued the same course that we had done on the previous forenoon, to the southward and eastward among the mud flats. He went ahead, and had his two men on the flanks constantly sounding with their paddles. Their boats, or viatkies, are about fifteen feet in length and twenty inches beam, modelled very much like a paper raceboat, and provided with a double paddle. The native faces the bow, pulling alternately with the right and left hand, the fulcrum of the lever being an imaginary point between the two hands. It is a very graceful and fascinating movement, and the natives make their boats skim along very rapidly, sounding at each stroke when going in shoal water. Wassili found a channel

among the mud flats for our boat, which at this time drew about twenty-six inches. We worked all day to the southward and eastward, and about 8 o'clock p. m. hauled out upon a flat beach and camped for the night, Wassili giving us fish for supper. The weather was very cold and raw, with a strong breeze blowing, and our pilot was very anxious about the state of the river, fearing that we would be stopped by young ice at any moment. The next morning the banks were fringed with young ice, but this we broke our way through and continued our course up the river. After the sun came out the ice melted, and we worked all day through a labyrinth of small streams, passing several hunting lodges. At night we slept in two houses on shore, and the next morning we entered a large body of water, which we thought was the main river. About noon we reached a point of land on which there was a deserted village of about six well built houses and a number of storehouses. Wassili took us to a house and told us to *couche* or eat. I noticed that one of the natives went away in his canoe. I then took a look at the village. The houses were in good repair, and there were numerous troughs for feeding dogs, and cooking utensils in them. The doors were not locked, but those of the storehouses were well secured with heavy iron padlocks of peculiar shape. Things looked more promising now, and I felt sure that the winter occupants of these houses could not be far off. During this resting spell I examined Leach's and Lauterbach's feet and limbs. Leach's toes had turned black and Lauterbach's legs were in a fearful condition, being greatly swollen, and having large patches of skin broken. We dressed them as well as we could with some pain extractor that I happened to have along, and when that gave out we used grease from the boat box. In about an hour a boat appeared in sight, and a number of people disembarked and entered a house near us.

A few minutes later Wassili came and asked Melville and me to go with him. He conducted us to the house, where we shook hands with an old native named Spiridon, who had two very hard looking women with him, each of whom had lost the left eye. They served tea to us, however, in china cups; also gave us some reindeer tallow, which they considered a great delicacy. Spiridon looked to me like a regular old pirate, and there was an air of mystery about the place that made me tell Melville I thought Spiridon was an old rascal and that I was afraid to trust him. He gave us a large goose, however, that was dressed and stuffed, with seven other geese, all boned, and this he said we must not eat until sleeping time on the following night; he also said that we would leave next morning. Newcomb had seen a number of ptarmigan flying about the deserted houses, and had bagged a few of these beautiful birds, which were in their white winter plumage, feathered from beak to toe. Then we started with a new pilot (Kapucan), a young man who lived with Spiridon. Old Wassili was quite exhausted, and he showed us his left elbow, where he had a severe gunshot wound, not yet healed. Caranie and

Theodore still accompanied us, and the former proved to be a better pilot than the latter. We worked very hard that day until 8 p. m., the men pulling all the time in one hour tricks. I had the helm and Bartlett the sounding pole. We camped for the night in a *polotka*, and when we got under way again next morning, only four of us were able to load the boat and get her off the beach.

During the previous three days Leach and Lauterbach had been working manfully at the oars whenever their turn came, although their limbs were in such a condition that they could not stand, and had to be assisted to and from the boat. Melville and Bartlett were in a similar condition, and this was the first day that Bartlett was not able to be one of the leading men in the work. We got under way that morning, and about noon reached the village of Geemovialocke, which we afterward found to be on Cape Bykoffsky, where we were received cordially by about twelve men, women and children. Melville and I were taken to the house of a certain Shagra Nicolai, who was the chief.

• CHAPTER XIX.

YAPHEM KOPELLOFF, THE RUSSIAN EXILE—VERILY A MAN AND A BROTHER—
UNFORTUNATE DELAY—MELVILLE HAS TO BE CARRIED—"PRETTY HIGH"
GEESE—A HOSPITABLE RUSSIAN—TREATED TO TOBACCO, TFA, DEER
MEAT, AND SUGAR—SEND DESPATCHES HOME.

A few minutes later in dashed a slight young man whom we at once saw was a Russian, and I thought he was a Cossack. His name was Yaphem Kopelloff, a Russian exile who lived in this village, and he proved very useful to us later on. At this time he could say "Bravo!" which he thought meant good, and that was the only word we had in common, but in less than two weeks he taught me so much Russian that I could make myself fully understood to him in a mixture of Russian and Tungus. We stayed at Nicolai's all night, and his wife gave us a fish supper, which we enjoyed heartily. We described, as well as we could, that three boats had been dispersed in a gale, and that we did not know where the other two boats were; also, that we wanted to go to Bulun, which place, he told us, was fifteen days off.

I need now to give you some explanation why we were at Cape Bykoffsky, so far out of our course to Bulun. Old Wassili, we understood at the time, was bound first of all to deliver us to the care of his chief, Nicolai Shagra, and with him we eventually found ourselves.

It was a very unfortunate time in the season. Young ice was making during the night and breaking up and thawing during the day. It was the transition period between navigation and sledding.

Nicolai Shagra told us it would take fifteen days to reach Bulun, but I think that he meant that a delay of fifteen days would be necessary before we started—that is, to await the freezing of the river. The next morning it was stormy, and he told us that we could not go, but about 9 o'clock he came in and began to rush us off, as if he really intended to send us to Bulun. He put sixty fish in our boat, and made signs for us to hurry up and embark. We did so, and he, with three others, went ahead to pilot us through the mud flats. Yaphem was in the boat with us. We worked up the river for about two hours, constantly getting aground, and, in the teeth of a fresh breeze, were making very slow progress. Before the village was out of sight, however, the pilots turned round and waved us back. We up helm and went back to the village, where they had a sled ready to carry Melville back to the house. About four of us secured the boat, but Nicolai insisted on hauling her up, for he made signs that she would be smashed by the young ice if we did not do so. The natives then assisted us, and we hauled her high and dry upon the beach. The condition of the men that day was such that I was not sorry that we had turned back, because they were not up to a fifteen days' journey, as represented by the natives. We were then taken to the house of a certain Gabrillo Pashin, where we remained all night. Next morning Yaphem and Gabrillo came to me, and made signs that they wished me to go with them.

They took me to an empty house at the end of the village, where I found some old women engaged in cleaning up. They indicated that they wished us to occupy it, so I had it cleaned out and moved the whole party into it about noon. Melville mustered the party and told them that he and I were afraid that scurvy had appeared among us; that we must keep the house and ourselves very clean, keep cheerful, and we could probably get along very well until proper food arrived. He also told them that I should take charge of everything during his sickness. The next morning all hands, except Jack Cole, the Indian and Anequin, were in a very bad condition, and we were the only persons who were able to get wood and water. Wilson was able to hobble about the house and prepare the fish, of which we were given eight per day, four in the morning and four in the evening. Yaphem lived with us; so that made twelve men with four fish, weighing about ten pounds, for breakfast, and the same amount for supper. We had no salt, but we had a little tea left. After a few days the natives gave us some decayed wild geese for a midday meal; they were "pretty high," as an Englishman would call them, but we managed to stomach them, for we were capable of eating almost anything. Yaphem also gave us some goose eggs.

Thus we lived for about a week. Then came a *prasmik*, or native feast day, during which Yaphem took some of us out to make calls, when the natives presented us with fifteen other geese of a similar high character as the others. But our party improved in condition day by day; one by one reported himself as fit for duty, and in about

a week's time Melville, too, was well enough to reassume charge informally. The natives were generous to us. I am not sure what their resources in fish were at the time; but I know they were not catching too many. One day I hauled the nets with Andruski Burgowansky; we drew seven nets and got only eleven *bulook*, a splendid fish, one of which he gave me as a present. There was a little deer meat in the village at the time, but we were unable to get any.

One day we were surprised by the arrival of a Russian at the village. I have forgotten to tell you that the night after we got back the young ice formed on the river, and that sledding commenced in our vicinity about a week later. This Russian was brought to our house, and I acted as interpreter as well as I could.

Learning that he lived only nine or ten versts away, I asked him to take me home with him, as I wished to talk with him about our future movements, and to learn the best route for getting to Bulun. To this he willingly consented, and at 2 p. m. we drove over to his house. With him and his wife, a Yakut woman, I spent the evening, and here I learned some news from the great world from which we had been so long absent. He told me that the Czar had been assassinated; that the Lena was still in the river; that Sibirakoff was running some steamboats, and also that Austria and Prussia had been at war. He spoke of Count Bismarck, of Generals Skobelev and Gourko and the Turkish war, and of a great many other things besides. His wife presented me with some tobacco, about five pounds of salt, a small bag of rye flour, some sugar and two bricks of tea. And here let me say, that the native women were always very kind in spite of their ugliness, and I would like to send up a large load of gay calicoes, bandanas and other fineries for them if I could. Next morning Kusmah Jeremiah—for that was the name of the Russian exile—took me to the door, and showed me a fine little reindeer which he had bought for us, and asked if it suited me. I told him it would be very welcome, and so it was immediately slaughtered. We had tea for breakfast, with fish and fish patés, which the good woman had made specially for me, and just before I left, Kusmah promised that on the following Sunday he would take me to Bulun with deer teams. I asked him who else would go, and he said two other Russians. I asked how many Tungus, and he said there would be none, because they were bad; and on all occasions he tried to indicate that there was something wrong with the Tungus. I asked him to come over the following Wednesday to consult with Melville, and then I returned home with the provender. Our people were delighted with the change of diet. The deer, when dressed, weighed ninety-three pounds.

On Wednesday, Kusmah came over, as he had promised Melville. We took him down to the boat, and had it turned over for his inspection. We then retired to an empty house, where Melville, Kusmah and I had a consultation. Kusmah said he could go to Bulun and return in five days. When asked if he could go quicker with or with-

out me or Melville, he indicated that it made no difference. Melville decided that Kusmah had better go alone; Kusmah acquiesced, but on the following Friday we were surprised to learn that he was going to take Nicolai Shagra with him. I have not mentioned that the second day after our return to the village, Nicolai came to us and wanted a written paper from us, which he promised to forward to Bulun at the earliest opportunity. I wrote a paper in English and French, which Wilson put into Swedish, and Lauterbach into German, and all four versions of this document, together with a picture of the ship and a drawing of the American flag, were sewed up in oilskin and given to Nicolai, who handed them to his wife, and that good woman put them in her cupboard for safe keeping. They were never forwarded. Subsequently Melville and I prepared despatches for the minister at St. Petersburg, for the Secretary of the Navy, and for Mr. James Gordon Bennett, but Melville sent nothing by Kusmah.

The day after we arrived, it was decided that I should go to Bulun, as I was in the best physical condition and the most available person. For more than two weeks my projected trip was talked about by us and by the men. I was to bring back food and deer sleds for the whole, and also to take the despatches which we had prepared. After my return from Kusmah's house, however, Melville decided that Kusmah should go alone, and as he promised to be back in five days, he decided not to send any despatches by him, but to take them himself.

He started on October 15, and was to have returned in five days, but he did not return until October 29, when he brought a small supply of food, and reported that the commandant would be at Bukoff on November 1 with deer and sleds to carry the whole party to Bulun. On his way back, on October 26, Kusmah met two of the first cutter's crew at Kumouk Suaka.

I started with dog sleds for Bulun, hoping to intercept the commandant on the way; but he had reindeer, and travelled by a different route. Master John W. Danenhower having recovered the use of his eyes, was placed in charge of my party, with orders to follow me to Bulun as soon as transportation could be obtained. I arrived at Bulun at 5 p. m., November 2, and found the two men in a very exhausted condition.

From them I learned the following particulars of what transpired subsequent to October 1, the date of the latest of Lieutenant De Long's records.

THE STORY OF NOROS AND NINDERMANN.

The party (De Long's) crossed the Lena to the west bank on October 1, to a summer hunting lodge called Usterda. The toes of seaman H. H. Erickson having been amputated, he was placed upon an improvised sled, which was hauled by his comrades, several of whom were hardly able to walk, owing to frozen feet and legs. They proceeded

south slowly for two days, and crossed a small branch of the Lena, which they had to wade. On October 6 they stopped at a small hut, where Erickson died the next day, and was buried in the Lena.

By this time they were in a deplorable condition, having eaten their last dog meat, and being on an allowance of three ounces of alcohol per man per day. They proceeded south until October 9, when Lieutenant De Long decided to send two men ahead to seek relief.

The feet of Nindermann and Noros were better than those of the others, and they were supplied with their blankets and Remington rifles (forty rounds of ammunition) and six ounces of alcohol, which was a per capita division of the whole stock of the latter. They were ordered to proceed south on the west bank of the Lena, and to send relief, if found, being told that the others would follow their footsteps. When the two men started, the party was at a halt on the north bank of a large western branch of the Lena. The two men ascended that branch about five miles to make a crossing, and then travelled south-east to a hut known by the two crosses, and situated on the Lena bank. After fourteen days of intense suffering and slow progress, they reached Bulcour, and were found by three natives, who supplied them with food and transported them to Bulun by deer sleds, arriving at that place October 27.

The commandant of Bulun took good care of them, but was unable to understand them. He gave them material, and they wrote a long despatch addressed to the American Minister at St. Petersburg, which the commandant took with him to Bukoff. Mr. Danenhower immediately sent it to me by special courier, together with an order from the commandant to a subordinate at Bulun to furnish me with an outfit, and appointing Banoulok as a rendezvous, at which place I met him and the remainder of my party on November 5.

Had consultation with commandant; ordered Mr. Danenhower to proceed south with all the party except James H. Bartlett, first class fireman, who was to remain at Bulun to communicate with me, and I started north on that evening, November 5, to the relief of Lieutenant De Long, having with me two natives and two dog trains with provisions for ten days. Stopped at Kumouk Suaka, November 5. Travelled fifty versts November 6, and reached Bulcour. Found two deserted houses and traces of the two men, Nindermann and Noros. Weather bound November 7; travelled sixty-five versts on November 8; examined small huts where the two men had slept and where a number of sleds were stowed. Slept in snow bank that night. November 9 travelled eighty-five versts, visiting the huts at the two crosses, the Shoal at Astolira, and reaching Mortrai after midnight.

The next morning I found in the hut a waist belt that had been made on board the Jeannette, and there were good indications that one or two of Lieutenant De Long's party had slept in the hut. On November 10, our provisions running short, I decided to go to Upper Bulun, a distance of 120 versts to the northwest, in order to renew

them. Reached Upper Bulun about midnight on the 11th, having stopped at the deserted hunting station of Cath Conta on the 11th, and also having visited eight huts on the route. Considerable stale fish and deer meat were found at Cath Conta, but no signs of it or the huts having been visited by De Long's party.

On my arrival at Upper Bulun the natives brought in Lieutenant De Long's record, dated October 1, and I learned that others had been found. I sent to a neighboring village for them, and the next morning records dated September 22 and 26, with a Winchester rifle, were brought to me. On November 12 were weather bound. The only provisions to be obtained were deer meat and fish, there being a scarcity of the latter, the natives having to send 250 versts for their own supply.

On November 13 I obtained four days' supply of fish, and with fresh dog teams and natives started for Ballock, a hut in which record No. 2 and the Winchester rifle were found. Slept there that night; found both huts filled with snow. On November 14 I followed the east bank of the Lena to the coast; followed the coast about three miles to the east and found the cache that had been made by Lieutenant De Long on September 19, 1881. I made a thorough search and gathered up everything. The sleighs being too heavily laden to carry it, I searched for the boat both east and west of the cache, for a distance of five miles each way and to a distance of one mile and a half off shore, and saw no signs of it. The ice was very much broken, and was shoved up in masses to within twenty-five feet of the cache.

I returned about midnight to Ballock, and to Upper Bulun the next day, November 15, during a heavy storm. Was obliged to wait here two days to rest and feed the dogs. During this time I overhauled everything obtained in the cache, and the following is a correct list, viz :

- One box containing refuse, medical stores.

- One box of small articles (messgear).

- One box for navigation books and sextant.

- One box chronometer.

- Two tin cases containing four log books.

- Two cook stoves.

- Two pieces of rope.

- Seven old sleeping bags, condemned.

- One lot of old clothing (worn out).

- One Winchester rifle.

- One repeating rifle (both broken).

- One boat breaker.

- One boat bucket.

- One box specimens from Bennett Island.

(N. B. Some of these articles were left at Upper Bulun, and the others were taken to Yakutsk.)

There was no list of articles found in the cache, but record No. 1 was found in the navigation box.

On November 17 I left Upper Bulun with fish for ten days' food, and with three dog teams, driven by three natives, I visited the place at which De Long's party crossed the Lena, and traced the party to Sixteraneck, from which place I wished to search for the hut in which Erickson died, but there was a storm raging, and the natives insisted on returning to either Bulun or Upper Bulun, because there was a lack of food and the dogs refused to work. We had only raw, frozen fish to eat, so I determined to return to Bulun, and arrived there November 27, in a nearly exhausted condition—feet, hands, legs and face badly frostbitten—having been ten days in a continuous storm, remaining two nights and one day in one hole in a snow bank, without shelter of any kind.

From my knowledge of the country, and from the evidence of Noros and Nindermann, I am convinced that Lieutenant De Long and party are somewhere to the westward of the Lena, and between Sixteraneck and Bulcour, which are separated by an extent of about one hundred and fifty versts of a barren and desolate region, devoid of subsistence. To search that region a large force will be required, with proper authority from the Russian officials. I therefore came to this place to communicate with the United States, and immediately, with the aid of the authorities, to organize searching parties.

In the meantime, the commandant of Bulun is searching with all the force his small town affords. The governor of this province has sent a general order throughout the entire region, from the Lena to Kolyma, to search for and render assistance to both parties that are missing. I am now completing my arrangements, and will start north in a few days. The Governor General, D. Tscherinieff, is rendering every assistance in his power.

CHAPTER XX.

DANENHOWER STARTS FOR HOME—MELVILLE PRAISES LEACH, BARTLETT AND DANENHOWER—DE LONG'S LANDING—TRACES OF HIS MOVEMENTS ON SHORE—RELICS FOUND—DE LONG AND HIS CREW FOUND DEAD!

When Mr. Danenhower reached Bulun, transportation south could be furnished for only six men, so he took the five weakest of the party and reached this place on December 17. The remaining six arrived here yesterday. The general health of the whole party is excellent, but Mr. Danenhower's eyes are badly affected. John Cole, seaman, suffers from aberration of the mind, and Hubert Leach, seaman, from frozen toes. To-morrow, Mr. Danenhower, with nine men, will proceed to Irkutsk, and thence to the Atlantic seaboard.

I will keep Joseph H. Bartlett, first class fireman, and W. F. C. Nindermann, seaman, with me. Mr. Danenhower will carry to the

United States the records and the articles found in the cache. I have sent you this day a telegram to that effect.

In conclusion, I call the attention of the department to the upright and manly conduct of Master J. W. Danenhower, who cheerfully rendered the most valuable assistance under the most trying circumstances, and whose professional knowledge I availed myself of on all occasions. We were in perfect accord at all times, although an unfortunate circumstance deprived him of his legitimate command.

The conduct of first class fireman Joseph H. Bartlett is worthy of special notice. His superior intelligence, cheerful disposition and energy, is highly commendable.

Also to seaman Hubert Leach, who was at the helm for eleven hours in the gale, during which time his feet and legs were badly frozen. After which he worked manfully at the oars without a murmur, enduring the most intense pain.

Yours, respectfully,

GEORGE MELVILLE,

Passed Assistant Engineer United States Navy.

COPY OF RECORD NO. 1.

This record was found in the cache at the landing place by me :

GEORGE MELVILLE,

Passed Assistant Engineer.

DE LONG DESCRIBES THE LANDING.

"ARCTIC EXPLORING STEAMER JEANNETTE,

"LENA DELTA, Monday, Sept. 19, 1881.

"The following named fourteen persons belonging to the Jeannette, which was sunk by the ice on June 12, 1881, in latitude north 77 deg. 15 min., longitude 155 deg., landed here on the evening of the 17th inst., and will proceed on foot this afternoon to try to reach a settlement on the Lena River.

"GEORGE W. DE LONG,

"Lieutenant Commanding.

1. LIEUTENANT DE LONG,
2. SURGEON AMBLER,
3. MR. COLLINS,
4. W. F. C. NINDERMAN,
5. A. GARTZ,
6. AH SAM,
7. ALEXIE,

8. H. H. ERICKSON,
9. H. H. KOCH,
10. C. W. BOYD,
11. W. LEE,
12. N. IVORSEN,
13. L. P. NOROS,
14. A. DRESSLER.

"Whoever finds this paper is requested to forward it to the Secretary of the Navy, with a note of the time and place at which found."
(Copies of the above in six languages followed.)



"A record was left about one half mile north of the southern end of Simoutki Island, buried under a stake. The thirty three persons composing the officers and crew of the Jeannette left that island in three boats on the morning of the 12th inst. (one week ago). That same night we were separated in a gale of wind and have seen nothing of them since. Orders had been given, in the event of such an accident, for each boat to make the best of its way to a settlement on the Lena River, before waiting for anybody. My boat made the land in the morning of the 16th inst., and I suppose we are at the Lena Delta. I have had no chance to get sight for position since I left Simoutki Island. After trying for two days to get in shore without grounding, or to reach one of the river mouths, I abandoned my boat and waded one and a half miles, carrying our provisions and outfit with us. We must now try, with God's help, to walk to a settlement, which I believe to be ninety-five miles distant. We are all well; have four days' provisions, arms and ammunition, and are carrying with us only ship's book and papers, and blankets, tents and some medicines; therefore our chance of getting through seems good.

"GEORGE W. DE LONG,
"Lieutenant United States Navy, Commanding."

COPY OF RECORD NO. 2.

This record was found in a hut by a Yakut hunter, and given to me at Upper Bulun.

GEORGE MELVILLE,
P. A. Engineer, U. S. N.

MOVING SOUTHWARD.

"AT A HUT, LENA DELTA,
 "ABOUT 12 MILES HEAD OF DELTA, }
 "Monday, Sept. 26, 1881."

"Fourteen of the officers and men of the United States Arctic steamer Jeannette reached this place last evening, and are proceeding to the southward this morning. A more complete record will be found in a tinder case hung up in a hut fifteen miles further up the right bank of the larger stream.

"GEORGE W. DE LONG,
"Lieutenant Commanding."

P. A. SURGEON J. M. AMBLER,
 MR. J. J. COLLINS,
 A. GARTZ,
 W. F. C. NINDERMAN,
 A. DRESSLER,
 H. H. ERICKSON,

AH SAM,
 H. H. KOCH,
 ALEXIE,
 G. H. BOYD,
 L. P. NOROS,
 W. LEE,

N. IVORSEN.

COPY OF RECORD NO. 3.

This record was found in a hut by a Yakut hunter and given to me at Upper Bulun :

GEORGE MELVILLE,
P. A. Engineer, U. S. N.

ANOTHER STORY OF THE LOSS AND LANDING.

"ARCTIC EXPLORING STEAMER JEANNETTE,
"AT A HUT ON THE LENA DELTA,
"BELIEVED TO BE NEAR TCHOLHOGOJE,
"Thursday, September 22, 1881. }

"The following named persons, fourteen of the officers and crew of the Jeannette, reached this place yesterday afternoon on foot from the Arctic Ocean.

"GEO. W. DE LONG,
"Commander of Expedition, Lieutenant U. S. Navy.

"Whoever finds this paper is requested to forward it to the Secretary of the Navy, with a note of the time and place at which it was found."

.(Copies of the above in six languages followed.)

LIEUT. DE LONG,
P. A. SURGEON J. M. AMBLER,
J. J. COLLINS,
W. F. NINDERMANN,
H. H. ERICKSON,
A. GARTZ,
G. H. BOYD,

N. IVORSEN,
A. DRESSLER,
H. H. KOCH,
L. P. NOROS
W. LEE,
AH SAM,
ALEXIE.

"The Jeannette was crushed and sunk by the ice on the 12th of June, 1881, in latitude 77 deg. 15 min. north, longitude 155 deg., after having drifted twenty-two months in the tremendous pack ice of this ocean. The entire thirty-three persons composing her officers and crew dragged three boats and provisions over the ice to latitude 76 deg. 38 min. north, longitude 150 deg. 30 min. east, where we landed upon a new island—Bennett Island—on the 29th of July. From thence we proceeded southward in boats, sometimes dragging over ice, until the 10th of September we reached Simoutki Island, at ninety miles northeast of this Delta. We sailed from there in company on the 12th of September, but that same night we were separated in a gale of wind, and I have seen nothing since of the two other boats or their people. They were divided as follows:

"SECOND CUTTER.—Lieutenant Chipp, Mr. Dunbar, A. Sweetman, W. S. Hornell, E. Staar, H. D. Warren, A. P. Kuehne, and P. Johnson.

"WHALEBOAT.—Past Assistant Engineer Melville, Master Danenhower, Mr. Newcomb, J. Cole, S. H. Bartlett, H. Wilson, S. Lauderbach, F. Mansen, Charles Long Sing, Anequin and H. W. Leach.

"My boat having weathered the gale, made the land on the morning of the 16th inst., and after trying to get in shore for two days, and being prevented by shoal water, we abandoned the boat and waded to the beach, carrying our arms, provisions and records, at a point about twelve miles to the north and east of this place. We had all suffered somewhat from cold, wet and exposure, and three of our men were badly lamed, but having only four days' provisions left, and reduced rations, we were forced to proceed to the southward. On Monday, September 19, we left a pile of our effects near the beach, erecting a long pole, where will be found everything valuable—chronometer, ship's log books for two years, tent, etc., which we were absolutely unable to carry. It took us forty-eight hours to make these twelve miles owing to our disabled men, and these two huts seemed to me a good place to stop while I pushed forward the surgeon and Lindermann to get relief for us. But last night we shot two reindeer which gives us abundance of food for the present, and we have seen so many more that anxiety for the future is relieved. As soon as our three sick men can walk, we shall resume our march for a settlement on the Lena River.

"SATURDAY, Sept. 24—8 A. M. •

"Our three lame men being now able to walk, we are about to resume our journey, with two days' rations deer meat and two days' rations pemmican and three pounds tea.

"GEORGE W. DE LONG,

"Lieutenant Commanding."

COPY OF RECORD NO. 4.

Found in a hut by a Yakut hunter, and given to me at Upper Bulun.

GEORGE MELVILLE,

P. A. Engineer, U. S. N.

LAST RECORD.

"SATURDAY, Oct. 1, 1881.

"Fourteen of the officers and men of the United States Arctic steamer Jeannette reached this hut on Wednesday, September 28, and, having been forced to wait for the river to freeze over, are proceeding to cross to the west side this a. m. on their journey to reach some settlement on the Lena River.

"We have two days' provisions, but having been fortunate enough

thus far to get game in our pressing needs, we have no fear for the future.

"Our party are all well except one man, Erickson, whose toes have been amputated in consequence of frost bite. Other records will be found in several huts on the east side of this river, along which we have come from the northward.

"GEORGE W. DE LONG,

"Lieutenant U. S. N., Commanding Expedition."

Passed Assistant Surgeon	AMBLER,	J. J. COLLINS,
	G. H. BOYD,	W. F. NINDERMANN,
	A. DRESSLER,	H. H. ERICKSON,
	H. H. KOCH,	A. GARTZ,
	N. IVORSEN,	W. LEE,
	AH SAM,	L. P. NOROS.
	ALEXIE.	

ENCLOSURE NO. 5.—DE LONG'S INSTRUCTIONS TO MELVILLE.

"U. S. ARCTIC EXPEDITION, CAPE EMMA,
 "BENNETT ISLAND, LAT. 76.38, LONG. 148.20 E., }
 "Aug. 5, 1881."

"To P. A. Engineer GEO. W. MELVILLE, U. S. N.:

"SIR—We shall leave this island to-morrow, steering a course (over ice or through water as the case may be) south magnetic. In the event of our embarking in our boats at any time after the start, you are hereby ordered to take command of the whaleboat until such time as I relieve you from that duty or assign you to some other. Every person under my command at the time who may be embarked in that boat at any time is under your charge and subject to your orders, and you are to exercise all care and diligence for their preservation and the safety of the boat. You will, under all circumstances, keep close to the boat in which I shall embark; but if unfortunately we become separated, you will make your way south until you make the coast of Siberia, and follow it along to the westward as far as the Lena River. This river is the destination of our party, and without delay you will, in case of separation, ascend the Lena to a Russian settlement, from which you can communicate or be forwarded with your party to some place of security and easy access. If the boat in which I embarked is separated from the other boats, you will at once place yourself under the orders of Lieutenant C. W. Chipp, and so long as you remain in his company, obey such orders as he may give you.

"Very respectfully,

"GEORGE W. DE LONG,

"Lieutenant United States Navy, Commanding Arctic Expedition."

IRKUTSK, *May 5, 1882—1:20 P. M.*

The following dispatch has just reached here by special express from Yakutsk :

LENA DELTA, *March 24, 1882.*

"I have found Lieutenant De Long and his party ; all dead.

"All the books and papers have also been found.

"I remain to continue the search for the party under Lieutenant Chipp.

"MELVILLE."

THE NEWS IN WASHINGTON.

A dispatch from Chief Engineer Melville, identical in tenor and wording with the above, was received yesterday by Secretary of the Navy Chandler, at the Navy Department, Washington.

THE STORY CONFIRMED.

IRKUTSK, *May 5—Morning.*

The following dispatches have just been received here by special courier from Mr. Jackson, the *Herald* correspondent, on his way north to the mouth of the Lena :

DISPATCH NO. 1.

DEER STATION, KENURACH, in
District of Verchnaransk, }
April 10, 1882.

A rumor is current among the Tungus natives, that five men have been found by the Tungus at the mouth of the Lena.

They describe one as wearing a gold faced uniform. Noros tells me Captain De Long wore his uniform coat under his ulster at the time of landing.

I give this as rumor, but it is remarkable that news spreads among the Tungus with great speed.

JACKSON.

DISPATCH NO. 2.

FORTY MILES BEYOND KENURACH, }
April 12, 1882.

A Cossack *estafette* (special express) has just arrived here with dispatches, bringing the news that the bodies of Captain De Long and ten men have been found all in one spot.

He takes sealed dispatches, which you will receive with this.

JACKSON.

CHAPTER XXI.

SAD NARRATIVES OF NOROS AND NINDERMANN—INTERVIEW WITH NOROS—
THE SOUTHWARD MARCH—A SAD FAREWELL—THE SPOT OF PARTING—
WEARY, WEARY TRAMP.

Although some of the incidents which follow have already appeared, by bits, in the preceding narrative, we deem it well to give in their own words, as near as possible, their account of their weary tramp and sufferings.

Noros, in his letter, after giving a brief statement of the loss of the Jeannette and the cruise of the three boats, proceeds to say: "Our crew and one dog remained a few days on the seacoast on account of some of the men's feet being badly frost bitten, leaving behind the ships log and other articles, not being able to carry them, started to travel south with five days provisions. Erickson, walking on crutches a few days after made a sled to drag him, came to a hut on the 5th of October. On the morning of the 6th the Dockter cut off all his toes, the Captain asked me if I had strength to go to one of the settlements with one of the men to get assistance, as he was going to stay by Erickson. While talking about it Erickson *Died*. we Bured him in the river the Captain said we will all go together, name of place *Ount Ary*, lat. 71 deg. 55 min. north, long. not known. Oct. 7th, Eat our last Dog meat, started traville south with about one quart of alkihall, and two tin cases of ships papers two rifles and little amunition, travilled until the 9th. nothing to Eat, drank three ounces of Alkihall a day per man, the Captain and the rest of them got weak and gave out travilling he then sent me and L. P. Noros with three ounces of Alkihall and one rifle and forty rounds of amunition on ahead to a place called Kumak Kurka (?). Distance about 12 miles to find natives, if not finding any to traville south until we did, took us five days to walk to Kumak Surka, found two fish took one days rest started south again nothing to eat, travilled until the 19th getting weaker every day gave up in dispair, sat down and rested, then walked one mile found two huts and a storehouse, where there was about fifteen pounds of *Blue-moulded Fish* stopped three days to regain strength, boath beaing to week to travill. On the afternoon of the 23d or thareabouts a *native* came to the hut, we tried to make him understand that there was eleven more men north, could not make him understand he took us too his camp whare thare was six more, also a lot of sleighs and raindeer they travilling at the time south, next morning broak camp came to a settlement on the 25th, called Ajakit here tryed again to make the people understand there was more people north, did not succeed. Ajakit is lat 70 deg. 55 min. north long. that known as the chart is a copy, sent for the govenor to Bulun, came 27th he knew the ships name, and knew about Nordenchawl, but could not talk English, we tried to make him understand that the Captain was in a starving condition or probably dead,

and that we wanted natives, Raindeer and food to get them, as I thought that we could make it in five or six days to save them from starvation but the Governor made signs that he had to Telegraph to St. Petersburg, he then sent us on to *Bulun*. We stand in kneed of food and clothing at present, our helth is in a bad condition hoping to be well soon we remain your humble servants,

"WILLIAM C. F. NINDERMANN,

"LOUIS P. NOROS,

"Seamen of the U. S. Navy, Steamer Jeannette."

AN INTERVIEW WITH NOROS.

In order to get a clearer idea of the places mentioned in the records, and to learn what I could of the place where the two men left the De Long party, I have had this morning an interview with Noros, who, I may say, tells a straight story and inspires me with confidence. He says that they landed at a point near the northernmost branch of the Lena, but which the captain found it impossible to enter on account of shoals. Captain De Long therefore determined to land at a point whence they could see this northerly outlet, but more to the east, and presumably near the point marked Segasta on the map. Two miles from the beach, he says, the captain ordered those of the men who could walk to get out and drag the boat nearer in shore. The captain, the doctor, Erickson and Boyd (both disabled) stayed in the boat, which the others were enabled to drag a mile further toward the land, then they, too, waded to the shore.

THE SOUTHWARD MARCH.

Collins had left the boat with the first lot and had made a fire on the shore. This was on or about the 15th of September, and the landing of articles was completed on the 17th. There the party stayed two days to recuperate, all the men being badly frostbitten, including the captain, the doctor alone being in comparatively good condition. Noros and Nindermann were the best conditioned among the men. The journey south was then commenced, the burdens being equally distributed. The captain bore his own blanket and some records. The burdens borne by some of the others were heavy; some complained of taking them further, but the captain insisted. The party then travelled south four days. On the way two deer were shot by the Indian Alexie. The party sat down and had a good feed, "De Long's motto being," Noros says, "to feed well while they had it." Noros thinks they made twenty miles in the first ten days, and that they reached a point near the one marked on the map as Tchobogoe, but which was only a single hut. The four next days

brought them to the extremity of a peninsula, and after some delay, waiting for the river to freeze, they crossed the river to the west bank on or about the 1st of October. The width of the river was there about five hundred yards. Before crossing, they got another deer. The captain's intention was to make for the place called Sagasta, on the map. Erickson died. His toes had been amputated by the doctor during the retreat. After crossing the river he one night pulled off his mittens, and one of his hands became frostbitten and circulation could not be restored in it. He died, and was buried in the river.

Then it was that the captain decided to send Noros and Nindermann ahead. The food had been quite exhausted; the party was existing only on brandy. Noros thinks it was on Sunday when they left. The captain had held divine service—the men seated on the banks of the river. After service he called the two men and told them he wanted them to push on ahead, and that he would follow with his party.

"If you find game," were his last words, "then return to us; if you do not, then go to Kumak Surka."

Noros thus describes the parting:—"The captain held divine service before we left. All the men shook hands with us, and most of them had tears in their eyes. Collins was the last. He simply said:—

"'Noros, when you get to New York, remember me.'

"They seemed to have lost hope, but as we left they gave us three cheers. We told them we would do all we could do, and that was the last we saw of them."

Such is Noros' story of the last seen of Captain De Long and his suffering party.

Noros continued:—"When we left, the captain said that Kumak Surka would be our nearest village. Snow had fallen to a depth of a foot to a foot and a half." From questions then put to Noros I gathered the following description of the place of the leavetaking: The river was about five hundred yards wide, and the place was near where the mountains on the western side ended. There was one spot which remained distinctly impressed upon his mind—namely, a high, conical, rocky island, which rose up out of the river and which he called Ostava, or Stalboy. How it got the name is not quite clear. But the rock is a landmark in his memory, and it bore about east or north from the spot where they left the captain. "The rock," he says, "is just at the end of the mountains; the mountains commence with that rock."

After leaving this rock the two men travelled slowly and wearily. They sighted deer once but could not get near them. They shot one grouse and caught an eel, which was all the food they had. They made a kind of tea from the bark of the arctic willow, but often had only hot water to drink. They chewed and ate portions of their skin breeches and the leather soles of their moccasins. The next point

on which Noros is clear, is that about two days after leaving the captain they crossed the Lena to the east side in the hope of finding game on the mountains, and that it took them a very long time to cross the ice at that point. I judge, therefore, that the place crossed by them is the broad expanse of the Lena marked on the map as near Sagasta. Therefore I conclude that the search will have to be made to the north of this expansion of the river. Noros believes that Nindermann will be able to point out the place where they left the captain. Noros offered to go himself on the search, but for some reason or other Melville refused his assistance. The rest of the journey of the two men is told in Nindermann's letter.

I have only to add, that if the names given by Noros may not agree with the chart sent to the Navy Department by Melville, I have simply told the story as I get it, and it seems clear enough to me that had Melville begun the search from the south upward instead of going first to the north, he would have found the survivors, and perhaps all in good time. I must add, too, that the first dispatches sent from Yakutsk appear to have done injustice to Noros and Nindermann, making it appear as if they had deserted their comrades, taking the boat with them. The boat had been abandoned long before, and, as I said, Noros tells a straight story.

CHAPTER XXII.

ON THE WAY HOME—LIEUTENANT DANENHOWER VISITS THE GRAND DUKE ALEXIS IN ST. PETERSBURG—DETERMINES TO RETURN HOME—IN ST. PETERSBURG—AN AUDIENCE WITH THE EMPEROR AND EMPRESS—HIS EXPERIENCE IN SIBERIA.

ST. PETERSBURG, *May 3, 1882.*

Lieutenant Danenhower, on Monday, dined with General Schweinitz, whose wife is an American lady, the sister of Mr. John Jay, of New York. Yesterday morning the gallant Lieutenant was introduced to Count and Countess Ignatieff, who had asked to see him. Lieutenant Danenhower is being lionized by St. Petersburg society, and his autographs are eagerly sought after. A courier went to meet Newcomb, at the Moscow railway terminus, and both at once proceeded to the Warsaw terminus, where Lieutenant Danenhower and your correspondent arrived at noon. A special train was waiting to take the party to Gatschina, which was reached at 1 o'clock. An officer was waiting there with two State carriages. Danenhower and Newcomb got into the first carriage, and your correspondent and an officer into the second. On reaching the palace they were received by General Tcherevine, who informed them that the Emperor would for once break through his rule, of never giving an audience after 1

o'clock, and would receive them at 2. After *dejeuner* had been served them they were ushered into a small *salon*, where they found the Emperor and Empress seated. On their entry both rose, and, offering them their hands, requested them to be seated. The Empress talked to Danenhower and Newcomb nearly the whole time. The Emperor wore a general's uniform and the cross of St. George. The Empress had on a simple, dark green cashmere dress. The first inquiry of their Majesties was for De Long and his nineteen companions.

The whole conversation was in English. It was begun by the Emperor saying, heartily, "I am very glad to see you." Danenhower told the Empress that he had seen her portrait in every Siberian village. She was invariably represented surrounded by her children. This had given him a great wish to see her. Now, that the wish was gratified, all his sufferings were forgotten. Their Majesties took leave of their visitors in a most affectionate manner. The party then drove back at once to the station, in the same way as they had come, escorted by an officer. Before Lieutenant Danenhower's arrival the *Herald* correspondent had had one hundred photographs of the Jeannette among the icebergs made. Danenhower and Newcomb put their autographs on several, and sent them to the Emperor, the Empress, the Czarewitch, Countess Ignatieff, Prince Worontsoff Dashkoff and General Tcherevine. Every one is now anxious to have the photographs. The Emperor was most favorably impressed by Danenhower, and was especially pleased by the Lieutenant's remark that the troubles of the party were over as soon as he met the first Russian. The Grand Duke Alexis sent Captain Prince Schakowskoi yesterday morning to inform the *Herald* correspondent that he would be happy to receive Danenhower and Newcomb to-day. The commandant of Cronstadt also informed your correspondent that he would send a naval deputation to the ball to be given in honor of the visitors. A deputation of the Geographical Society called to compliment Danenhower.

DANENHOWER'S EXPERIENCE.

Lieutenant Danenhower is in general very sceptical of the accuracy of all the charts and maps of the northern regions of Siberia. The gold production of these districts struck the Lieutenant as being far more important than it is generally supposed. The exiles, he says, are the most intelligent set of men in Siberia, and, although he was most hospitably received by everybody, it was from these exiles in particular that he learned anything worth knowing.

ST. PETERSBURG, May 4, 1882.

Lieutenant Danenhower was so fatigued yesterday that he was unable to keep his appointments with the Minister of Marine and General Anutchine. In company with Mr. Newcomb, he, however,

paid a visit to the Grand Duke Alexis, the head of the Russian navy, at the Winter Palace. The interview lasted an hour. The Grand Duke questioned Lieutenant Danenhower closely on several technical points connected with the Jeannette expedition, and referred to his own visits to the United States, requesting his guests to remember him to "his friends, the Americans," on their return home. To avoid breaking down from the fatigue inseparable from a too protracted stay in this hospitable capital, Lieutenant Danenhower has determined to sail direct from Cronstadt to Hull, on Saturday. He will proceed thence to Liverpool, where he will embark for America. He hopes to reach New York about the 23d inst. Danenhower's resolution is, to a great extent, prompted by the weak state of his eyes.

ST. PETERSBURG, *May 9, 1882.*

Lieutenant Danenhower, Jack Cole, Mr. Newcomb and Long Sing, left St. Petersburg at 5 o'clock to-day *en route* for the steamer Hidalgo. A deputation of naval officers, composed of two captains and three lieutenants, reached Cronstadt at 3 o'clock with a complimentary letter of adieu from the Russian Admiral. The Cossack who had accompanied Lieutenant Danenhower from Yakutsk burst into tears when the time arrived for starting, and insisted on being allowed to go with the Lieutenant as far as the Hidalgo.

SAFE HOME.

On the morning of May 28, 1882, four of the survivors of the JEANNETTE arrived safely in New York harbor. They were Lieutenant JOHN W. DANENHOWER, Professor RAYMOND, L. NEWCOMB, Boatswain JACK COLE, and the Chinaman, CHARLES LONG SING. They were met by many friends, and, of course, received a very hearty welcome. Unfortunately, the pleasure of the return was greatly marred by the fact, that the sturdy boatswain, JACK COLE, is suffering from an aberration of the mind. Hopes are entertained of his recovery. It was proposed to greet the returned with a public reception, but they were naturally anxious to avoid excitement. Rest was what they most needed.

APPENDIX.

THE DEAD EXPLORERS.

GEORGE WASHINGTON DE LONG, U. S. N.

Lieutenant Commander De Long was born in New York in 1844. He was an only child, and as both his parents died when he was quite young, the lad was almost alone in the world, his only living relatives being a few cousins, whom he seldom saw. A lady school teacher, principal of one of the public schools in Brooklyn, which De Long attended, said that as a schoolboy he was gentlemanly, energetic and bright. His ambition was to keep at the head of his class in all his studies; to let no pupil pass him in acquiring knowledge. Whenever there was a prize announced for the most proficient in any of the studies, De Long would exclaim, "I'll get that prize," and as the results invariably showed, he was no false prophet. He had so many good qualities as a boy that the present Vicar General Quinn, who was then the pastor in charge of St. Peter's Church, in Barclay Street, became so much interested in him, that he adopted young De Long as a sort of protege. It was through Father Quinn's intercession, it is said, that Congressman Benjamin Wood gave De Long the appointment to the Naval Academy on October 1, 1861. He graduated in 1865, and was promoted to ensign December 1, 1866; master, March 12, 1868, and lieutenant, March 26, 1869.

At the time the Russian Prince Alexis visited this country De Long was attached to the Brooklyn Navy Yard. He displayed at that time marked executive ability in preparing for the grand ball which the naval officers of the station tendered to the distinguished visitor, by direction of Rear Admiral Melancthon Smith, the commandant at the yard.

He was connected with the Polaris search expedition in 1873, as navigator of the United States Steamer Juniata, commanded by Captain D. L. Braine. Lieutenant De Long, on that cruise, accomplished a most perilous undertaking. At Upernavik, Greenland, he superintended the fitting out of the steam launch Little Juniata, a boat about thirty-five feet long, and with a picked crew clad in seal skins, and with provisions and coal, started further north in search of the missing vessel Polaris and Captain Buddington's party. He attempted to cross Melville Bay as far as Cape York by hugging the coast, but finding himself obstructed by ice, he was obliged to put back several

times. He finally struck a "true lead" (a channel way through the ice) and laid his course for Cape York. The fifth day out from the vessel a terrific gale sprang up while the boat was under sail, which had been resorted to the day previous to save fuel. For thirty hours they battled with this arctic gale, more terrible than anything in the lower latitudes, and were threatened with destruction by the hundreds of toppling and crashing icebergs around them. When the gale subsided, they found themselves in sight of Cape York, which was only eight miles distant. De Long desired to push on in further search, but as it was impossible to get over the ice to the land, and having imperative orders from Captain Braine to return when the fuel was half consumed, there was no alternative, and he reluctantly returned. The day before his arrival back at Upernavik the Tigress was sighted, and Lieutenant De Long begged that his party might be taken on board; but Captain Greer would not accede to a proposition which might mean a division of any resultant glory. The Tigress, which, as a merchantman, had rescued Tyson's party after its miraculous journey on the ice floe, and which was now proceeding north as a government vessel, found the camp of Buddington's party at Littleton Island and the *Polaris* sunk, with two icebergs stranded over her near by. De Long wanted to fit out the launch for a second attempt, but the supply of coal being short, it was not deemed advisable. De Long had been an enthusiast on the subject of arctic exploration since his return from the cruise in the *Juniata*. He made a study of the literature of the subject after that expedition was over, and the interest in the problem of the frozen North which that experience fostered never faltered in the mind of the young naval officer. He had the faculty of inspiring others with something of the same interest in arctic exploration which he felt, and no one was more earnest and persevering in preparing for the *Jeannette* expedition than he who was to command the unfortunate vessel.

Captain De Long had a sincere affection for his wife and child, and since his marriage in 1870, had managed, whenever it was possible in the exigencies of a naval officer's life, to have them with him wherever he was stationed. He was so fortunate as to have them with him the greater part of the time; and when, in 1879, he brought the *Jeannette* from Havre to San Francisco to prepare for her cruise in the Arctic, Mrs. De Long accompanied him on the voyage. He always expected to return in safety from the fatal expedition. He told his wife never to give him up, and his last letters to her are buoyant with hopes that were never realized. Mrs. De Long is the daughter of Captain James A. Wotton, of this city, well known in the mercantile marine. He commanded the steamer *Fulton*, one of the American line of passenger vessels plying between this port and Havre, until 1868, when Captain Wotton retired from the service and removed to Havre, France, to become the agent of the company in Europe. His house was always open to Americans visiting Havre, and many of his countrymen, especially naval officers, were in the

habit of enjoying his hospitality. It was in this way that Captain De Long became acquainted with one of Captain Wotton's two daughters. The friendship ripened into love, and in 1870, while on leave of absence in this country, the young naval officer returned to Havre for the purpose of making the elder Miss Wotton his wife. The marriage ceremony was performed three times over—once by the American Consul General at Glasgow—who afterward married the bride's sister—once by an Episcopal minister, and once more by the chaplain of the American man-of-war Shenandoah.

Marston Niles, formerly lieutenant commander of the Shenandoah, and a friend of Captain De Long, tells the story of the marriage, as follows: "At the time Captain Wotton, Mrs. De Long's father, was living in Havre, France. It was in the winter of 1870-1871, during the Franco-Prussian war. The Shenandoah was lying in the harbor. Captain Wotton had been particularly hospitable toward the officers of the vessel, and naturally very friendly relations existed between us. Arrangements had been made that the marriage should take place at the house of Captain Wotton, as would be expected, and the Rev. Mr. Washington—related, by the by, to General Washington—the chaplain of the Established Church at Havre, was to officiate. The ceremony was to take place at eight o'clock in the evening. Just before the hour the bewildering discovery was made that the marriage would be illegal, as the French government had issued an edict against all marriages during the Franco-Prussian war. A little after eight o'clock a boat was seen to draw alongside the Shenandoah, and who should come aboard, among others, but Captain Wotton, his two daughters (one of them since married to General Glasgow, recently the Consul at Havre, and the other the present Mrs. De Long) and Captain De Long himself. If the two could not be married in France they could be on the United States man-of-war. So the ceremony was duly performed on board the Shenandoah, and the happy couple received our congratulations."

Mrs. De Long is at present living in Burlington, Iowa, at the house of her sister, Mrs. General Glasgow. Her father, mother and her brother, James A. Wotton, Jr., reside in this city. In connection with the fate of Lieutenant Commander De Long a sad interest centres in the terrible death of Ben Long Edes, the young naval officer who was killed at Newport last summer by the explosion of a torpedo. Edes was a classmate of De Long at the Naval Academy, and each became the other's most intimate friend. Both met painful deaths within a few months of each other.

De Long was a man of fine appearance and of splendid physique. He was six feet in height, weighed 170 or 180 pounds, and was of a vigorous constitution and athletic frame. One who knew him intimately says of him that he was a gentleman of charming manners and an interesting, brilliant conversationalist. He was an acute observer of men and things, and in his travels had acquired a fund of valuable information. He took great pride and pleasure in his profession, and was a close student and an industrious reader.

Lieutenant Norris, executive officer of the *St. Mary's*, expressed himself as deeply grieved over the news of De Long's death. "De Long," he said, "succeeded Lieutenant Commander Wadleigh as executive officer of the *St. Mary's*, in 1875. He and Captain Fithian were here together. De Long left our ship to take command of the *Jeannette*. He was here between two and three years. When he went to the *Jeannette* he took Nindermann and Noros with him. They were, as Captain Erben said, strongly attached to De Long. I remember De Long coming aboard and speaking to Nindermann about the expedition. Nindermann's reply was to the effect that he would go anywhere with him. Just before he started on the expedition, De Long came on the *St. Mary's* to see us and bid us good-by.

"I remember one thing that happened while De Long was on this ship that will show his pluck. The vessel was at Lisbon, and De Long sustained a compound fracture of the ankle. The doctor told him that if he did not take the best of care of himself he would run the risk of losing his foot. There happened, however, to be no one to take charge of the deck, and De Long, although suffering intense pain from his injury, insisted upon filling the position. I distinctly remember him seated on the deck of the vessel, his leg in a sling, as attentive to duty as if he were a well man.

"He was a great student of arctic history, and his wife was almost as enthusiastic about it as himself. I remember meeting him in Washington. His thoughts were all about the *Jeannette* expedition, and what it would accomplish. He spoke with earnest hope of reaching the North Pole, and he and I spent some time in discussing what course he would best pursue in the event of his getting within the polar circle.

"On board this ship he was a great favorite. In the navy he bore as good a reputation as any of the younger officers. We all had confidence in his courage and perseverance. When he was appointed to command the *Jeannette*, it was the universal sentiment among all the younger members of the navy, that if any man could succeed in the enterprise, he was George W. De Long. In all the conversations I held with him he spoke hopefully of the success of the expedition. I think that in the news that reaches us of his conduct under the terrible experiences the *Jeannette's* crew encountered, he has shown that the faith we all had in his courage, ability, cool head and stout heart, was not misplaced."

Assistant District Attorney John Oakey, of Kings County, who knew De Long from his boyhood, in conversation with a *Herald* reporter, gave an interesting account of the early days of the intrepid lieutenant. "He was one of the brightest, nicest and most intelligent boys that ever lived," said Mr. Oakey. "I thought a great deal of him, and took a pride in all that pertained to his advancement. When I first knew De Long, I should say he was about fifteen years of age. My office was in the old Nassau Bank Building, No. 133

Nassau Street, where he was my assistant. I was notary of the Nassau Bank.

"After the fall of Fort Sumter I went to the war, and left George in charge of my office business. Some time after my return with the Seventh there was an examination ordered in the Greenwich Street public school for a cadet appointment at the United States Naval Academy, and De Long got it into his head that he should enter the navy. I knew Ben. Wood, who was a member of Congress, and had the appointment of a cadet, and George wanted me to see Mr. Wood and ask him for the place. I did so, and Wood said: 'I've got no appointment, as I have already made one.' Then I said: 'Well, Mr. Wood, in case you should have an appointment in the Naval Academy, will you promise to appoint my young friend, George W. De Long?' 'If ever there is any vacancy in my power to fill I promise your friend shall have it.' One morning soon after I came down to the office, and found George quivering with excitement. He had just learned that the cadet who had been appointed by Ben. Wood had been so afflicted with impaired eyesight that he had resigned from the Naval Academy. There was a vacancy, and Ben. Wood appointed De Long to fill it. At that time the Naval Academy was at Newport, R. I., having been removed from Annapolis. Professor Beecher, who had been my teacher at Flatbush, was professor of mathematics at the Academy, and when De Long received his appointment, I wrote a letter to the professor, recommending the young cadet to his friendship. I also obtained a letter for him from Miss Newton to the then commandant of the Naval Academy. The lady was a cousin of the commandant, and was a sister of Isaac Newton, engineer of the Monitor that fought the rebel fleet off Fortress Monroe. Then an obstacle most serious arose unexpectedly. De Long had passed a creditable examination, when there came a dispatch from Gideon Welles, the Secretary of the Navy, saying: 'Don't appoint Mr. Wood's appointee for the navy.' Ben. Wood had been charged with secession principles, and hence the opposition from Washington. George returned to New York, and I got him letters to Secretary Welles and to President Lincoln and others at Washington. I told him to go on, and stay and see everybody until his case was attended to. He did so, and came back in a day or two with his appointment confirmed.

JEROME J. COLLINS.

There is an especial sadness in announcing the death of Jerome Collins, the meteorologist of the *Jeannette* and *Herald* correspondent with the expedition. Honest, manly, courageous, affectionate, gay and tender, he leaves a memory dear to all who felt at any time the kindly magnetism of his presence. To the world of science as to the profession of journalism, his career had been rich in results as it was bright in promise. It was no tyro in meteorology who kept the weather records of the *Jeannette's* drift. As the discoverer of the law

of Atlantic storms and the successful predictor of their arrival on European coasts, he was a benefactor of his race, and will be remembered to all time. This single achievement places him among the foremost scientists of the age. To what further discoveries his observations of the arctic climatology might have led, can but be surmised. No seed of knowledge fell unproductive on his mind. By early profession a civil engineer, his mind was trained to the logical habit, and in every walk of life he trod this influence was apparent. When, to the qualities touched upon already, it is added that deep religious convictions guided his conduct, some indication is given of the perfect man whose death in the gloom of the arctic night we sadly record.

Jerome J. Collins was born at Cork, Ireland, October 17, 1841. His father, Mark Collins, a merchant and manufacturer of the city, was a member of the town council for twenty-two years when he died, in 1863. At the Mansion House School, under the Fathers of St. Vincent, young Collins early manifested a taste for the exact sciences, and when barely sixteen years old he became a pupil of Sir John Benson, the city and harbor engineer. He worked his way up rapidly; was made assistant engineer by the corporation. In this capacity he had charge of the erection of a number of important works in the river and harbor, and, in the case of the North Gate Bridge, was publicly thanked and his name inscribed on the work where his statue may yet stand. But for his active spirit his native city did not offer sufficient opportunities, and he practised his profession in England, where he made several railway surveys and had charge of important constructions in the midland counties. During the financial depression of 1866 in England, he turned his face to the New World and took passage for New York. After some professional employment in the Union Pacific Railroad Company's office, he was offered and accepted the task of directing the reclamation of marsh lands in New Jersey, near Newark. This important work was completed with great success in the fall of 1868. In 1869-70, Mr. Collins was street commissioner of Hudson City, N. J., where he resided. Shortly after he was appointed chief engineer of the Marsh Land Company, and subsequently was elected a director and became secretary. The temporary failure of this great scheme of swamp reclamation, in which he had unbounded faith, caused Mr. Collins to turn his attention to city surveying and general engineering practice, at the same time contributing to the daily press on many subjects, but particularly on meteorology, which had for some years attracted his attention. The potentialities of a comprehensive weather service were a fascinating subject of speculation and experiment for him.

Finally his journalistic leanings weaned him from engineering, and in 1875 he became regularly attached to the *Herald* editorial staff. While manifesting ability in many directions, upon the weather service he made his greatest success. His idea was to make the gathered information of practical use, and after a series of careful

experiments he began sending the now famous storm predictions for the *Herald* to Europe. The organization of the bureau became perfect in his hands. His work in this field was not unaccompanied by sharp criticisms.

So great an innovation on all former weather theories aroused almost every meteorologist of note in England to opposition. The idea of announcing storms for England from America was derided and scouted. The English papers at first accepted more as a curiosity than a benefaction the predictions cabled at the *Herald's* expense. Mr. Collins persevered. He knew he was right, for he had experimented most carefully through an entire year before he published a single prediction. He knew his work would tell for itself. The objectors neglected to examine the proofs which their own charts furnished of his success. They exhausted themselves in opposing the theory which the indisputable facts supported. The triumph of Mr. Collins was, however, at hand. Mere dullness cannot hold out forever. One by one they came to his side, or lapsed into silence. In 1878, Mr. Collins attended the Meteorological Congress in Paris, where he was received with high honors, and read two greatly applauded and sharply discussed papers on the *rationale* of storm warnings. Shortly afterward, in London, he met in the most pleasant way many of his former opponents. Like a true knight of science in such a case, he ever "forebore his own advantage." To have added to the world's knowledge was enough. The playfulness which underlay his serious moods made him the delight of the society in which he mingled. To those who knew him well, no touch of him could be truer than that given by Lieutenant Danenhower of Collins' telling him a witty story just before they embarked in the boats on that dark, gusty day, which was to be their last together in life. Mr. Collins was among the first of the captain's party to land on the Siberian beach. From the tall, six foot, cheery man, who that day lit the fire whereat his comrades might find warmth for their benumbed limbs, seems a long way to the sad man, with tearful eyes, who three weeks later bade good-by to Noros, saying, "When you get to New York, remember me." His memory in New York will not fail.

Mr. Collins was unmarried. It was a shy romance of his life, known to a few, that he hoped, on his return from the Arctic regions, to join hands with a young lady of this city.

DR. JAMES M. M. AMBLER, UNITED STATES NAVY SURGEON.

Dr. James Markham Marshal Ambler, the surgeon of the expedition, was the son of Dr. Carey Ambler, and was born in Fauquier County, Va., December 30, 1848. He was educated at the Washington and Lee College, Virginia, and graduated in 1870 at the University of Maryland. After obtaining his diploma he practised medicine for three years at Baltimore, and entered the navy as assistant surgeon in 1874, being first attached to the Naval Academy. His first sea service was on the United States corvette *Kansas*, when she was

cruising in the West Indies. He was next stationed on the flagship *Minnesota*, in New York harbor, for two years, and then was attached to the Naval Hospital. He was promoted past assistant surgeon in 1877. Dr. Ambler was a man of fine physique, six feet in height and strongly built. He was an enthusiastic sportsman, and in company with Mr. Collins, Engineer Melville and Captain Dunbar, had a narrow escape while hunting ducks in the sound which divides St. Michael's Island from the main land. Mr. Collins, in a letter to the *Herald* from St. Lawrence Bay, gave a graphic description of the adventure. They quitted the *Jeannette* in the steam cutter to get something for the larder by way of change from the canned meat. They met with fair sport, but on the return voyage the cutter was nearly swamped on the bar. Had it not been for the skill and seamanship of the officers above named all must have perished. Dr. Ambler was devoted to his profession and did all he could to alleviate the sufferings of the shipwrecked crew. He stood by the poor sailor Erickson to the last, and when it became necessary to amputate his toes, with a view to prevent his foot from mortifying, he performed the operation in a skilful manner, notwithstanding the dismal and perilous surroundings. He was a brave and humane man, and performed his duty unflinchingly and devotedly. Such men are an honor to any service in the world, and his countrymen will fully appreciate his gallantry and remember his sufferings.

THE SEAMEN.

WALTER LEE was born at Providence, R. I., in December, 1840. He enlisted as a machinist, and was a remarkably good tradesman. He was about the middle height, with flaxen hair and blue eyes, and was a general favorite on board.

GEORGE WASHINGTON BOYD was a native of Philadelphia, Pa., and was born on the 17th of September, 1855. Before enlisting on the *Jeannette* he had served on the United States steamship *Potomac*, at Philadelphia. He was rated as carpenter, after having passed the requisite examination in this city. He was a man of fine physique and excellent spirits.

HENRY HANSEN KNACK was born in North Schleswig, Germany, on the 6th of August, 1857. He enlisted as a seaman.

CARL AUGUST GARTZ was born at Hilsinglong, Sweden, on the 22d of September, 1844. He enlisted as a seaman in New York.

ADOLPH DRESSLER was born at sea on the 8th of September, 1857. He also enlisted as a seaman in New York.

NELSE IVORSEN was born in Jutland, Denmark, on the 7th of December, 1848. He enlisted at San Francisco as a seaman.

ALEXIE, the Indian, came from Norton Bay or the St. Michael's district. He spoke a little English, and was both intelligent and useful

as a dog hunter and driver. Captain De Long entered into an agreement to support his wife during her husband's absence, to pay him regular monthly wages. Alexie was to be given a Winchester rifle and supply of ammunition. Mr. Collins, in a letter from St. Lawrence Bay, dated August 27, 1879, describes his parting with his wife: "Mrs. Alexie, a chubby faced, shy, but good humored looking young female, came on board to see her husband off on his long cruise. She behaved with great propriety under the circumstances. Alexie behaved also with stolidity, tempered by affection for his spouse. They sat together, hand in hand, on some bags of potatoes near the cabin door, and probably exchanged vows of eternal fidelity. I was greatly touched, and got up on the bridge with my sketch book, on which I outlined their figures. I had to take them as they sat with their backs toward me, for Mrs. Alexie was too modest to face the pencil. Before leaving the ship Captain De Long gave the bereaved one a cup and saucer with gilt letters on it. She seemed overpowered with emotion at the possession of such unique treasures, and at once hid them in the ample folds, or, rather, stowage places, of her fur dress."

TRIBUTES FROM PULPIT AND ALTAR.

REV. DR. B. F. DE COSTA.

At the morning services at the Episcopal Church of St. John the Evangelist (the Wainwright Memorial), the pastor, Rev. Dr. B. F. De Costa, made reference to the expeditions of Franklin, Kane, Hayes, Hall, and finally to the Jeannette, under De Long. "At last," said the preacher, "the fate of De Long is known. Cold and starvation both did their fell work. This brave man is no more. The people of Europe and America recognize it as a common calamity. Many ask, Is it not time to abandon arctic research? As a utilitarian, I would say, No. First, a practical man would recognize the fact that arctic exploration cannot be stopped. It would involve a change in the nature of man. On the other hand, the knowledge to be reached by polar research is of the highest possible value, especially in connection with magnetism. But I do not confine myself to the advance of modern science. The value of arctic exploration is demonstrated on higher grounds."

The preacher then went on to speak of noble, heroic examples in which arctic exploration had proved so rich. The last 200 years, he said, afford a continuous line of heroes, ending in Commander De Long. He also dwelt on the high character of the men who had been engaged in these expeditions, who had gone to the North with a prayer on their lips, and with hearts uplifted with a prayer to the Divine.

These heroic examples were the outcome of a distinctly Christian civilization. In the ages all along the world has been indebted to the power of noble examples. Reference was made to the knights in the age of chivalry, also to the age of the Crusades, which had a direct practical bearing on the welfare of Christian civilization. The influence of the crusader survives wherever his story is told. In England to-day, thousands of families are living better lives from the fact that their ancestors fought with the Red Cross Knights in the Holy Land. Without the spectacle of disinterested self sacrifice, the world would sink down into a cold, hard selfishness. Heroism in connection with arctic exploration tends to awaken a higher and better life.

The example of Kane had a marked effect upon the young men of this country. Kane may have felt that he had failed, but his life was a splendid success. Real success often comes when we do not look for it. It is the success of which we are unconscious that tells. Kane could not have devoted himself to a better cause.

DE LONG'S UNDYING FAME.

It was so with De Long. He died in Siberia, but his name will never die. His name will be an inspiration for generations. De Long was a disinterested martyr to the cause to which he had consecrated all his faculties. His splendid example of courage and endurance will tell. It ought to tell. It should shame into glorious action Christian young men who are now doing nothing worthy of their powers and opportunities. He would ask no young man to volunteer for the next expedition, but he would call upon them to enter with a generous and chivalrous spirit into the duties that lie around them here in New York, which call for the display of the noblest qualities, and often demand a courage as calm and persistent as that required in battling with the ice in the Arctic Sea. Be admonished, he said, by the shining example of Commander De Long. If he and his companions could show so noble a devotion, and surrendered even their lives to the cause of science, ask yourselves what you ought to be willing to do as Christians for the cause of Christ. Rouse from all indifference and selfishness, and throw yourself nobly into life's work. Be inspired by these splendid examples, and acquit yourselves like men. As you read the story of the sufferings and endurance of these brave hearted explorers in the barren wilds of Siberia, come out of the atmosphere of cold, calculating selfishness, and consecrate yourselves to the cause of science and humanity, which is the cause of Christ. Come and pledge yourselves to fresh activity and to a higher and nobler life. Come, for the world is wasting. Come, for the feeble need help. Come, for the wanderers that have to be restored. Come, for the ennobled lives that have to be led. Come, for God is waiting to bless and crown your work.

VERY REV. FATHER LILLY, O. P.

At the Church of St. Vincent Ferrer, which is in the charge of the Dominican Fathers, in Lexington Avenue and Sixty-fifth Street, Very Rev. Father Lilly, the superior, who celebrated the early mass, called upon the congregation to offer up their fervent prayers for the repose of the soul of Mr. Jerome J. Collins, one of the heroes of the Jeannette polar expedition. Father Lilly paused a moment, as if about to add some words to the announcement, and then proceeded with the usual notices. He afterward said to a *Herald* reporter, with deep emotion: "I was about to speak of that noble, sterling man, but I could not trust my feelings. I will recur to the subject on another occasion, when the thrill which the terrible news caused has somewhat abated. Poor Collins! I knew him and his family so well, and what an exemplary family they were! They used to attend this church regularly, but my knowledge was not confined to them as members of the congregation, for my acquaintance with them was very intimate. Jerome, in his genius, his Christian life, his attachment to his devoted mother, his unwavering fidelity to his friends, his modesty and his manhood, was one of God's noblest works. The very day he parted with his mother for the last time, he was as submissive to her and as loving as when he knelt at her knee to repeat the child's prayer."

REV. DR. DE WITT TALMAGE.

In his Friday evening lectures, in the Brooklyn Tabernacle, upon secular topics as viewed from a religious standpoint, Dr. Talmage said:

While we were yet rejoicing over Danenhower's flattering and magnificent reception by the Czar and Czarina in the palaces of all the Russias, our American pride gratified by the reception such as has been given to no private citizen, and our arctic misfortunes were having this bright alleviation, we were struck back by a great calamity, and the scene was changed from one over which presided an emperor of the earth to a scene presided over by the King of Terrors. It went through us like a sickening chill of an arctic blast, when we read in last Saturday morning's paper:—

"I have found Lieutenant De Long and his party; all dead.

"MELVILLE."

Ordinary travellers perishing in the snow are a spectacle ghastly enough; but here are eleven heroes stretched on their frozen bier. It takes bravery to face sabre and bayonet, but greater prowess is demanded in such a conflict as this. Bayonets sometimes get bewildered and run; but eternal winter never falls back. Other enemies

may get out of ammunition, but the arctic always has cutting blast unsheathed and shot of hailstorm and great fleets of icebergs thundering in the siege. From year to year, and from century to century, the great battle of storms goes on. Armageddon of cold and hurricane. Dead in the snow. "All dead!" No necrology to tell which perished first, leaving message for loved ones with others if they ever saw New York, nor which perished last, himself alone with none but God and the ice. Homesick were they, until the tears froze on their peeled and bleeding cheeks. Yes, all of them homesick. Messages for wife, and child, and friend, but none to take them. But I suppose at such time God gives especial grace. They were not unbelievers. "By God's help," De Long says again and again in his letter—"by God's help we will do so and so." And then what a story Noros tells of the day he left De Long and his men to go ahead for supplies. He says: "It was Sunday, and Captain De Long had led in divine service, the men seated on the banks of the river." God is no more with those who worship by the warm fire of the hearth in the snug home than by those who kneel at an altar of icicle, nor so much, nor so near. Where God is needed the most, He is present the most.

THE GRADUATE OF A BROOKLYN SCHOOL.

Had they returned, we should have greeted them with huzza on huzza; but that is not the appropriate word now. We need requiem rather than grand march. Our first dirge is for the graduate of one of the public schools of Brooklyn, George Washington De Long. Going out from the midst of this city, leading a retreat across three thousand miles over the sharp glass of unrelenting frost, and then dying with his men in the Balaklava of frozen horrors, overcome by mightier odds than that against which rode the Six Hundred. Genial, highly educated, fearless, passing up from the office of ensign to that of master, and from master to lieutenant. What a proud day that 8th of July, 1879, when, commanding the *Jeannette*, and with a picked crew, and other vessels flagged and decorated and crowded with friends to see them off, the expedition sailed out of the Golden Gates under the benediction of the United States Government, and for the increase of the world's knowledge and the cause of geographical discovery. Widowhood and orphanage mourn the tidings come down on the Siberian blast. God of the widow and the fatherless, pity them!

There also was Collins, the meteorologist and scientist and able correspondent of the expedition, full of enthusiasm for his work, and a deeply religious man. And there was Ambler, the surgeon, a high souled Virginian, unflinchingly following those who would be sure to need his skill and care—kind nurse as well as skilful surgeon. And there were those whose lives were just as dear to them, although their names may not be so widely known—eleven dirges—and the dirge for the homeless sailor shall be as solemn and as

tender as that for the chief. Let the United States government gather up their bodies, kept in the ice of Siberian winter, and fetch the precious remains home to Greenwood and the village graveyard.

THE ADVANCEMENT OF SCIENCE.

One cries out: "What a waste of money and men! What useless bereavement! What prodigality thrust in the hand of death!" Not so. All intelligent men will say that Mr. Bennett did a grand thing for science and the world, when, at vast expense to himself, he fitted out the Jeannette and turned her prow northward. So all the attempts at discovery have had depreciators; George Stephenson, of the railroad, and Eli Whitney, of the cotton gin, and Morse, of the telegraph, and Livingstone and Stanley, of African exploration; and the Cabots, and Sir Hugh Willoughby, and Sir Humphrey Gilbert, and Captain Ross, and Franklin, and Scoresby, and Dr. Kane, and Hayes, and Schwatka, and De Long, of arctic attempt. "Now," say many, "let this arctic enterprise cease. Enough life has been lost there; they sleep under the white blankets of the snow—Hugh Willoughby and all his crew, Schelleroff and all his crew, Sir John Franklin and all his crew, Lieutenant De Long and all his crew. Why any more human bones thrown to the dogs of the Esquimaux?" I answer, that with each expedition the field of human knowledge has been widened, and no good is ever gained without great sacrifice. Thousands of men are sacrificed every year to money making. You do not denounce them as wasting their time. Thousands of men slain in battle. You do not consider their lives as wasted. Surely men going forth, not to injure the race, but to enlighten it, and falling in the attempt, ought not to be classed with the failures. Whether other attempts at arctic expeditions will ever be made or not, I cannot say; but this much I will say: The human race could not have afforded to stop this work any sooner. We may not be called upon to encourage further attempts, but we have no right to discourage them. You cannot see what good can come of them, but from the way that the human race seems determined to keep pounding against the barred gateway of those icy palaces, I should not wonder if some great practical good would yet come of it. What good? I might as well ask you why, twenty years ago, you did not guess the telephone, or sixty years ago you did not guess the telegraph? Men never kept toiling in any artistic, or literary, or social, or scientific, or political direction, but after a while they found out something valuable—never!

* * * * *

Approaching Quarantine is the steamer bearing Danenhower and other escaped members of the brave company of men who went forth to battle their way toward the North Pole. Their comrades fallen in the Austerlitz of icebergs, these men come back wounded into the

hospital of the world's sympathies. Their attempt was sublime, their endurance terrific, and their welcome ought to be unanimous and enthusiastic. They went, not on a crusade of vain curiosity, but to conquer wider realm for the possession and mastery of the human race. With eye blasted with excessive vision, and health bitten of the everlasting frosts, they come down out of the mountains of snow and ice into the valleys of our American springtime. Let them be greeted to the national fireside aglow with the warm sympathies of our fifty million people. They have endured enough for one lifetime, and ought, the rest of their days, have nothing to do but receive the gratitude of the people. We, who sat by stove and register, with flannels on, and nervous if a slight draught came through the key-hole, can have but incompetent appreciation of these men, who, to win more knowledge and wider realm for the race, fought starvation and chill death on the northern edges of the world. A few wiseacres stand around, hands in their pockets, whistling in a sort of derisive triumph, and say, "I told you so. It can't be done. The North Pole will never be discovered. Useless waste of human life." So the world always says at partially completed enterprises.

WITHIN FOUR HUNDRED MILES OF THE POLE.

Five hundred times did I hear the same thing said when Livingstone was lost in Africa. "Never hear of him again. Might better have stayed at home with his family. No advantage will ever come from it." But what fool would say so now, since through Livingstone and Stanley the inside doors of Africa have been set wide open, inviting civilization and Christianity to enter, and estimates are being made for the building of a railroad across the great Sahara Desert? All great enterprises have at different stages of progress been the target of caricature. The North Pole will be reached. I congratulate the Congress of the United States on another bill now before it for the fitting out of a new expedition for the North. The human race cannot afford to stop short of complete success. Arctic exploration will have about fifteen chapters before the *finis* of the great Book of Crystals. The De Long chapter is about the twelfth. Do you realize how near the work is done? Arctic explorers have come within four hundred miles of it—only about as far as from here to Rochester, or from here to Portland. It will be done. If the human race stop now and unhook its sledges and furl its sail within four hundred miles of the magnificent terminus, then it is not worthy of the men who stood under the battle axes of the arctic ice—McKenzie, and Ross, and Willoughby, and Cabot, and John Franklin, and Kane, and Schwatka, and De Long and Danenhower. The goal is so near reached that the hero is now born who will wear the coronal of final achievement. The ship may now be in some cradle or dry dock which shall yet glide over the bones of the dead fleet of arctic vessels, whose very names suggest their perilous undertaking—the

Terror, the Erebus, the Hecla, the Dorothea, the Victory, the Advance, the Rescue, the Resolute, the Intrepid, the North Star and the Jeannette. Right over that sepulchre of dead ships shall yet go some divinely guided craft, carrying the American flag at her mast-head, to drop anchor, at the consummation toward which the prowess, and the genius, and the ambition of many nations for centuries have been struggling. I urge no one to go on such an expedition, but I protest against the effort to belittle the heroism of those who did go, or the philanthropy and public spiritedness of those who, for the last fifty years, have been fitting out polar expeditions.

LAUNCH THE DO-NOTHINGS FOR THE ANTARCTIC.

The world is full of do-nothings, who with no grand attempts of their own are maddened at the great undertakings of others. The most mangy and scabby breed of curs on earth occupy the kennel of "I told you so." They are the pest of the church and the world. I would like to fit them all out for an expedition to the antarctic, the regions furthest off from where the brave men of the North have won renown, and have their ships never heard of! The business that requires less brain than any other is that of the fault finder. By all our cities and by the American government, let there be hearty welcome to the navigators who are to-night about to come up our harbor! Ah! we have found at last how the world is bounded. On the north, on the south, on the east, on the west, by the courage of man and the greatness of God. It is not more what such explorers discover of the features of the globe than what they discover of the capacity of man when he sets out for great achievements. The influence of such example is most salutary. If men can endure so much for geography and science, what ought we to be willing to endure for religion and humanity? God is fitting out expeditions on all sides, and men and women are wanted who care little for their own comfort and everything about what they can do for others. Paul commanded such an expedition, Florence Nightingale another, Alexander Duff another, John Howard another, Bishop Asbury another. If you cannot command an expedition, you can join one. Let us organize it now. Expedition against arctic selfishness, against arctic pride, against arctic exclusiveness. The whole ocean of life is covered with floating icebergs, running down the good, and the pure, and the true.

THE BRIGHT DAY COMING.

The day will arrive when all the great Christian expeditions will come back in the presence of many worlds. Not only the leaders, but the led; not only the commanders, but the commanded; not only the celebrated, but the obscure, shall get celestial and Divine recognition. That day will be the rectification of everything, and those who expected to take back seats in heaven will be called to take front seats, and those who would have been satisfied to occupy a footstool

will be awarded a throne, and those who had no ambition except to get inside the shining gates will be made rulers over many cities. Meanwhile, in the presence of recent events, I charge you keep yourselves intelligent in the movements by which the entire globe is becoming the property of the human race. Look at a map of the world a hundred years ago and then look at it now. We have had unfolded to us great tracts of land unknown to our fathers. While amid vast discouragement and amid great loss, the work of exploration has been going on in the North, it has been going on in all other directions. Humboldt in South America and Mexico, and the United States exploring expedition on the western coast of North America, and the British expedition on the southern extremity of South America, and Fremont amid the savage wilds of the interior of our own continent, and Dr. Robinson in the Holy Land gathering up corroborations of Bible statements, and Missionary Thompson in Syria finding the remains of ancient cities of the Bible and Scriptural customs still in existence, and Lieutenant Lynch, of our own navy, exploring Jordan and the Dead Sea, not only in behalf of commerce, but to the advantage of that kingdom which is not of this world—all these only give you a feeble idea of what is being suffered and achieved for the great cause of geographical discovery. Do you suppose that all this has nothing to do with the cause of God? Is it nothing to us that all the Holy Land is still found breathing of the Blessed One who once walked its hills and drank of its wells, and preached on its mountains? Is it nothing to us that we should be informed as to the interior portions of this North American continent, when in all parts we are to build our school houses and plant our churches and establish our civilization? Let there be congratulation and gratitude on all sides at the widening prospect.

THE CHUKCHES.

Considering the prominent part that the people of northeastern Siberia may have to play in the search for the missing members of the Jeannette expedition, a sketch of them will prove of interest to the reader. Very little was known of the natives who inhabited that territory, lying between the Kolyma River and Behring Strait, until the middle of the seventeenth century, when a party of Russian hunters fell in with a small body of them while on a journey to the coast. Close communication with them was at first found to be impossible, owing to the unfriendly attitude they assumed, so the little bartering done with them was only accomplished by the Russians leaving their goods on the ground and retiring some distance. The Chukches then came up, and taking the articles offered, left in their place their

value in furs, walrus tusks, and other products of the country. Such was the first insight of the Chukches to civilization. In after years it came upon them in the shape of forced tributes to the Russians, attended by conflict and slaughter. Winning them over to the delights of civilization by conquest having proved a failure, the more peaceful mode of accomplishing that design was tried, and proved a complete success. They are now an independent set of people, paying nothing in the shape of tribute except a small market toll, and have built up quite a brisk trade with the Russians.

Among the travellers who visited the land of the Chukches, Wrangel, Billings, Von Lutke and Captain Moore may be cited as having obtained much interesting data regarding the habits of the people. The Chukches, like nearly all the polar races, are divided into two classes, which, although speaking the same language and belonging to the same race, differ considerably in their mode of life. One division, called the reindeer nomads, lead a wandering existence, being almost constantly on the move, with their large herds of reindeer. They also do a little trading when the opportunity is afforded them, but their main subsistence depends on their flocks. The other division of the race are the coast Chukches, who do not own any reindeer, but live in fixed but easily movable and frequently moved tents along the coast between Tschau Bay and East Cape. In a few instances the coast Chukches crossed the Behring Strait and lived in villages on the American coast. Professor Nordenskiöld states, in his history of the Vega's voyage, that as near as could be judged from the data obtainable, the whole population of Chukch Land was between four thousand and five thousand persons. In 1711, a Cossack authority reckoned that both the reindeer and coast Chukches numbered about two thousand, so that the race has doubled its numbers within the past two centuries. The language spoken is different from all the other northern races. Like most of the other polar tribes, the Chukches are no longer an unmixed race. Some of them are tall, with raven black hair, brown complexion and high aquiline nose; in short, with an exterior that would remind one of the North American Indian. Others, by their dark hair, slight beard, sunk nose, or rather projecting cheek bones, and oblique eyes, remind one of the Mongolian race; and finally, we meet among them people with fair faces, and with features and complexions that lead to the suspicion that they are the descendants of runaways or prisoners of war of purely Russian blood. The most common type is straight, coarse black hair, of moderate length; the brow tapering upward; the nose finely formed, but with its root often flattened; eyes by no means small; well developed black eyebrows; projecting cheeks, often swollen by frostbite, which is specially observable when the face is looked at from the side; light, slightly brown complexion, which in the young women is often nearly as red or white as in Europeans. The Chukches are a hardy race, but exceedingly indolent when want of food does not drive them to exertion. The

men, during their hunting excursions, pass whole days in a cold of thirty to forty degrees below zero, out upon the ice without protection, and without carrying food or fuel with them. In such cases they slake their thirst with snow, and assuage their hunger, if they have been successful in hunting, with the blood and flesh of the animals they have killed. Women, nearly naked, often during severe cold, leave for awhile the inner tent, or tent chamber, where the train oil lamp maintains a heat that is at times oppressive.

Notwithstanding such exposure, disease is quite uncommon, with the exception of very bad skin eruptions. In the autumn nearly all suffer from severe coughs, but when the cold weather arrives those disappear. One extraordinary feature about the Chukches is, that a severe frostbite is never seen on either the hands or feet, owing, probably, to the serviceable nature of their shoes and gloves. During the period that Professor Nordenskiöld was with them—from the beginning of October, 1878, to the middle of July, 1879—no deaths were observed to have occurred.

The dress of the Chukches is made up of reindeer or seal skin. The former, because it is warmer, is preferred as material for the winter dress. The men are never tattooed, but have sometimes a black or red cross painted on the cheek. They wear the hair cut close, with the exception of a short tuft right on the crown of the head, and a fringe above the brow. The women have long hair, parted in the middle, and plaited along with strings of beads into braids, which hang down behind the ear.

Both sexes of the Chukches use snow shoes during the winter. Without them they will not venture on a long journey, because of the tiresome work of extricating the feet from the deep snow. The shoes are similar in every way to those used by the Indians in the Northern Territories. Another implement for travelling over snow was seen by Professor Nordenskiöld while with the Chukches. It consisted of a pair of immensely wide skates of light wood, covered with seal skin, and raised at both sides. In order to use them, the wearer is attached to the tracings of a reindeer at the belt, so that he can drive the animal in any direction, and be drawn as if in a sled. The implements of war and the chase used by the Chukches have deteriorated considerably since the days of their encounters with the Russians. Professor Nordenskiöld was surprised at the difference in workmanship in the bows made at the present time and those manufactured many years ago. The former were badly worked, slightly bent, elastic pieces of wood, the ends being drawn together by a skin thong, while the older bows had a finer form, were larger, and in many cases were covered with birch bark, and strengthened by an artistic plaiting of sinews on the outer side. The arrows used are of the rudest pattern, and are usually headed with pieces of flint. The spear, harpoon and dart are also used by them in the chase.

The principal livelihood of the Chukches is derived from hunting and fishing. Both are very abundant at certain seasons of the year,

but are less productive during the cold weather, in which case, in consequence of the little forethought of the savage, there arises great scarcity both of food and fuel, and the means of melting snow. They catch the seal in nets made of strong seal skin, which they set in the summer among the ground ice along the shore. The animal gets entangled in the net and is suffocated, as it can no longer come to the surface to breathe. The bear is killed with the lance or knife, the latter weapon being considered the surest. The larger kind of seals and walrus are taken with the harpoon. For the whale, they have a very large harpoon, to which is attached several inflated sealskins, for the purpose of indicating where the animal is when dead. The inland Chukches trade with those on the coast by bartering deer meat for train oil, skin traps, walrus tusks and fish. The cooking of the Chukches, like that of most wild races, is very simple. After a successful catch, all the dwellers in the tent gormandize on the killed animal, and appear to find a special pleasure in making their hands and faces as bloody as possible. Nothing in the shape of knives, forks or plates are used, the sole object of the feeder being to put away as much as possible at each meal, without reference to the manner in which it is cooked or the cleanliness of the party who acted as *chef de cuisine*. If there is anything on the surface of this globe that a Chukch has a preference for it is spirituous liquor. The promise of rum will get the most obstinate member of the tribe to comply with one's wishes. They become exceedingly merry and friendly, and often become rather troublesome, by their excessive caressing. Tobacco is in common use also, both for smoking and chewing.

To illustrate the utter unwillingness of the Chukches to exert themselves as long as there is a hope of getting liquor, the following experience of Professor Nordenskiöld may be cited. It appears that the letters of the Swedish expedition, announcing their arrival in safety at Cape Serdze, were delivered on October 6, 1878, to Wassili Menka, one of the reindeer Chukches, who was supposed to be a very fleet messenger, with the request to give them to the Russian authorities at Markova. His expeditiousness proved to be only a fable, however, for on the 18th of the same month, when the Professor thought him at Markova, he returned to the vessel accompanied by his son-in-law, and wanted *ak mimil* (fire water) to keep holiday with. Nothing in the shape of half imperials and metal ruble pieces would induce him to go. He wanted brandy, and would exchange three slaughtered reindeer for it. Finding his reception on board the Vega rather cool, he retired, and it was not until the 9th of February, 1879, that they heard through another Chukch that Menka had performed the journey. This latter information also proved incorrect, for he did not reach Anadyrsk until the 7th of March. Thence the package of letters was sent to Irkutsk, arriving there on the 10th of May. In the search for Lieutenant Chipp and his companions, the Chukches will no doubt prove useful, if their natural disinclination to work can be overcome.

WRECK OF THE JEANNETTE.

BY ALLINE YATES.

Where towered the icebergs green,
Rivalling th' emerald's sheen,
As June December,
The bold ship, never veering,
To the North Pole steering,
No disaster fearing,
We still remember.

Through the long winter night,
E'en the Aurora's light
Had ceased to charm us;
As on our journey wending,
Beneath the heavens bending,
Fate, still farther sending,
Seemed to alarm us.

Closed in the flocks of ice,
Crushed by the frigid vice,
The stout ship splintered;
O, cruel fortune! when
Homeless, we stricken men
Wept for the brave ship then,
Where long we wintered.

Sinking, her ice clad spars
No more up to the stars,
Like arms beseeching,
Would to the gusty gale
Bear still the fluttering sail,
Boding the fearful tale
Long nights were teaching.

Waved then no more our flag
Above the snowy crag,
As there we parted,
With willing heart and hand,
To seek the distant land,
Each with his chosen band,
Sad, but stout hearted.

There on that savage shore,
To see mankind no more,
With snow clouds o'er them;
Dark in that sullen clime,
Shrouded in winter rime,
Heroic and sublime,
Death rose before them.

Unto the bitter end
Man stood by foe and friend,
The last crust sharing;
Then came that fatal sleep,
With none to vigil keep,
Lulled by the sobbing deep,
O'er deeds so daring.

Brave men, who perished there,
Through years will be more fair
Your wreaths of glory;
Yours is no crimsoned page,
Who noblest warfare wage;
Pass to the heroic age
Of famous story.

O Science, cease thy quest;
With this woe let us rest,
Its memory keeping.
Delude the brave no more;
Better thy reign be o'er
Than on the desert shore
Such brave hearts sleeping.

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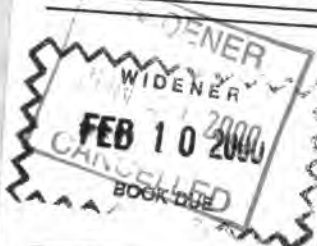


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